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# Current Wastewater Management. Areawide Waste Treatment Management Plan for the Greater Houston Area (Section 208, P.L. 92-500)

**Houston-Galveston Area Council, TX**

**Prepared for**

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As required by Section 208 of the Federal Water Pollution Control Act Amendments of 1972 (P.L. 92-500), Houston-Galveston Area Council has been designated by the Governor of the State of Texas as the planning agency to develop a comprehensive areawide waste treatment management plan for the greater Houston area. Data in this catalog was obtained through a series of interviews with selected local entities as well as a number of State, regional, and federal agencies. Basic managerial, institutional, and regulatory data were collected using a standard interview guide. Two versions of this guide were used; one for state and federal agencies, and the other for regional, county, municipal, and local districts in the H-GAC designated area.

This report presents data according to geographical jurisdiction: federal, state, regional, municipal, county and water district. Within each level of agency, the discussion of individual agencies is organized as to agency role, organization and responsibilities and specific programs.

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# CURRENT WASTEWATER MANAGEMENT

MAY 1977

REVISED NOVEMBER 1977

HGAC HOUSTON-GALVESTON AREA COUNCIL

REPRODUCED BY
NATIONAL TECHNICAL
INFORMATION SERVICE
U.S. DEPARTMENT OF COMMERCE

# CURRENT WASTEWATER MANAGEMENT

## AREAWIDE WASTE TREATMENT MANAGEMENT PLAN
## FOR THE
## GREATER HOUSTON AREA
## (SECTION 208, PL 92-500)

MAY 1977

REVISED NOVEMBER 1977

PREPARED FOR THE HOUSTON-GALVESTON AREA COUNCIL
BY ARTHUR YOUNG AND CO./TEAM FOUR, INC.

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# I - INTRODUCTION

# CHAPTER I - INTRODUCTION

## General

The Houston-Galveston Area Council (H-GAC) has been designated by the Governor of the State of Texas as the planning agency to develop a comprehensive areawide waste treatment management plan for the greater Houston area. This plan is pursuant to the requirements of Section 208 of the Federal Water Pollution Control Act Amendments of 1972 (P.L. 92-500). This planning program is directed toward the national goals of "swimable and fishable" streams by 1983. The greater Houston area was selected as a designated area because of substantial water quality problems due to urbanization and significant concentration of industry in the region (Figure 1).

The United States Environmental Protection Agency is responsible for administering the Act (P.L.92-500) and specifically provides direction to states and designated areas and approval of plans. The overall objective of P.L.92-500 is to "restore and maintain the chemical, physical and biological integrity of the Nation's water." It is a national policy that areawide waste treatment management planning be conducted by states and regional agencies to develop implementable plans. This process includes identification of all wastes generated in the areas, proposed alternative treatment systems, regulatory programs to control sources and recommendation of alternative management agency(ies) which will have responsibilities for implementing and administering the plan. The Governor of the State of Texas will designate the management agency(ies) after consultation with the planning agency (i.e., H-GAC) and inputs from all affected local agencies.

The authority required by the Act of the designated management agency(ies) is as follows:

> "(A) to carry out appropriate portions of an areawide waste treatment management plan developed under subsection (b) of this section;
> "(B) to manage effectively waste treatment works and related facilities serving such area in conformance with any plan required by subsection (b) of this section;
> "(C) directly or by contract, to design and construct new works, and to operate and maintain new and existing works as required by any plan developed pursuant to subsection (b) of this section;
> "(D) to accept and utilize grants, or other funds from any source, for waste treatment management purposes;
> "(E) to raise revenues, including the assessment of waste treatment charges;

"(F) to incur short- and long-term indebtedness;
"(G) to assure in implementation of an areawide waste treatment management plan that each participating community pays its proportionate share of treatment costs;
"(H) to refuse to receive any wastes from any municipality or subdivision thereof, which does not comply with any provisions of an approved plan under this section applicable to such area;"

Listed below are the sections of P.L. 92-500 that could have a major impact on the development of the H-GAC areawide waste treatment management plan. They are as follows:

| Section | Title |
|---|---|
| 105 | Grants for Research and Development |
| 106 | Grants for Pollution Control Programs |
| 109 | Training Grants and Contracts |
| 201 | Grants for Construction of Treatment Works |
| 204 | Construction Grant Limitations and Conditions - User Charge/Industrial Cost Recovery |
| 208 | Areawide Waste Treatment Management |
| 301 | Standards and Enforcement - Effluent Limitations |
| 302 | Water Quality-Related Effluent Limitations |
| 303 | Water Quality Standards and Implementation Plans, including Basin Plans |
| 305 | Water Quality Inventory |
| 306 | National Standards of Performance |
| 307 | Toxic and Pretreatment Effluent Standards |
| 308 | Inspections, Monitoring, and Entry |
| 309 | Federal Enforcement |
| 402 | National Pollution Discharge Elimination System |

## Methodology

Data in this catalog was obtained through a series of in-depth interviews with selected local entities as well as a number of the State, regional, and federal agencies. Basic managerial, institutional, and regulatory data were collected using a standard interview guide. Two versions of this guide were used; one for the State and federal agencies, and the other for the regional, county, municipal, and local districts in the H-GAC designated area.

Basic data for each agency in the data catalog was collected from the Texas Water Rights Commission, Vernon's Annotated Civil Statutes, and other available summaries of the agencies involved. H-GAC and the consultant project manager developed criteria for selecting agencies that required interviews. Interviews were conducted at the State level to confirm policy statements prior to interviews at the local level. This enabled improvements in the local interviews and the ability to provide additional information to local officials. The interviews also served as data verification and had the effect of minimizing data enhancements or major revisions.

Summaries of the authority and activities of typical agencies were initially documented. Next, data was gathered by project team interviews in order to develop objective and consistent approaches using the standard formats. Verification of much of the data was possible during the interviews and it was possible to confirm specific relationships. For example, if one agency indicated that it provided wastewater treatment services to a district, an effort was made to confirm this relationship with both entities.

State and regional agency data sections were compiled based on interviews and standard published documentation. Extensive interviews were conducted at those regional and State agencies identified as having the greatest likely potential impact on 208 management agencies. The Texas Water Quality Board, Texas Water Rights Commission, Texas Water Development Board, Texas Department of Health Resources, and the General Land Office represent the State agencies interviewed. Those regional agencies interviewed consist of Houston-Galveston Area Council, Gulf Coast Waste Disposal Authority, San Jacinto River Authority, Clear Creek Basin Authority, Brazos River Authority, Harris-Galveston Coastal Subsidence District, and the Association of Water Board Directors. Data was compiled prior to each interview from enabling legislation, ordinances, agency reports, and management assessments performed during other related studies.

Federal agencies were primarily documented from existing publications regarding authority and activities. Interviews were informally conducted with the Environmental Protection Agency, the Corps of Engineers, and the Department of Agriculture.

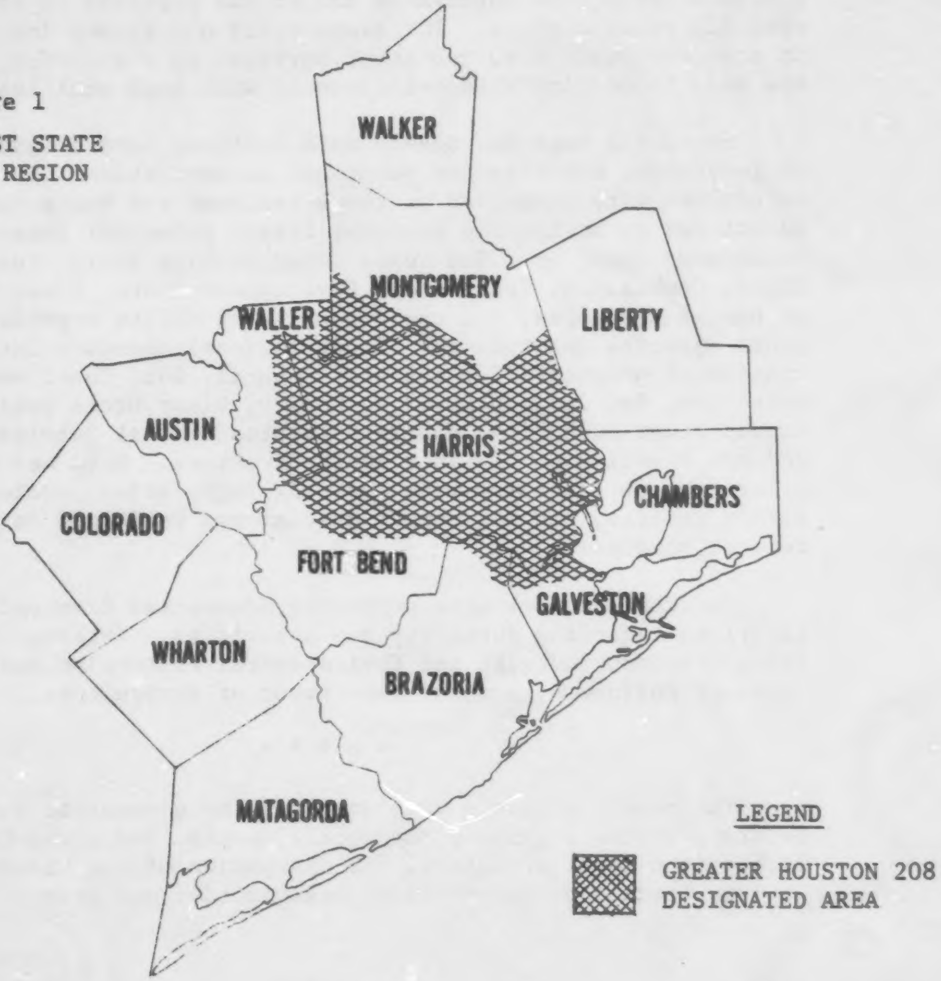
* * * * *

The report presents data according to geographic jurisdiction: Federal, State, Regional, Municipal, County, and Water District. Within each level of agency, the discussion of individual agencies is organized as to agency role, organization and responsibilities, and specific programs. Those agencies whose responsibilities include many of the 208 required functions are also discussed with regard to each function specifically. Figure 2 presents a summary of functional activities and authorities for all agencies and entity types in this report. Symbols are used to reflect types of activities performed by each agency. This information identifies the common activities, interrelationships, and levels of activities in each of the ten 208 functional areas of responsibility.

Appendix A contains special terms and abbreviations which are frequently used throughout this report.

Figure 1

GULF COAST STATE PLANNING REGION


WALKER
MONTGOMERY
WALLER
LIBERTY
AUSTIN
HARRIS
CHAMBERS
COLORADO
FORT BEND
GALVESTON
WHARTON
BRAZORIA
MATAGORDA
LEGEND
▨ GREATER HOUSTON 208 DESIGNATED AREA

# SUMMARY OF 208 FUNCTIONAL ACTIVITY

## FIGURE 2

**LEGEND**

A—AUTHORIZE
R—REVIEW
I—INFORM
C—COORDINATE/COMMENT
P—PERFORM/PROVIDE
*—LIMITED FUNCTION

| AGENCIES INVOLVED IN 208 | | WASTEWATER TREATMENT—208 FUNCTIONS | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | PLANNING | OPERATING AND MAINTAINING | DESIGNING AND CONSTRUCTING | FINANCING | PERMITTING AND REGULATING—(POINT SOURCE) | PERMITTING AND REGULATING—(NON POINT SOURCE) | STANDARD SETTING | ENFORCING | MONITORING | MANAGING AND COORDINATING |
| FEDERAL AGENCIES | ENVIRONMENTAL PROTECTION AGENCY | A | A | A | P | P | P | P | P | P | A |
| | U.S. ARMY—CORPS OF ENGINEERS | C | — | C | — | — | — | — | — | — | — |
| | U.S. FISH AND WILDLIFE SERVICE | C | — | — | — | — | C | C | — | — | — |
| | D.C.—OFFICE OF COASTAL ZONE MANAGEMENT | C | — | — | — | — | C | — | — | — | — |
| | U.S.—SOIL AND CONSERVATION SERVICE | I | — | I | P* | — | I | — | — | — | — |
| | DEPARTMENT OF HOUSING & URBAN DEVEL. | R | — | — | P* | — | R | — | — | — | — |
| | DEPARTMENT OF TRANSPORTATION | C | — | — | — | — | — | — | — | — | — |
| | U.S. GEOLOGICAL SURVEY | C | | | | C | C | | | | |
| | COMMISSION ON ENVIRONMENTAL QUALITY | — | — | R | — | C | C | C | — | — | C |
| | FEDERAL REGIONAL COUNCIL | C | — | — | — | — | — | — | — | — | C |
| | OFFICE OF MANAGEMENT AND BUDGET | — | — | — | R | — | — | R | — | — | C |
| | ECONOMIC DEVELOPMENT ADMINISTRATION | C | — | — | C | — | — | — | — | — | — |
| STATE AGENCIES | OFFICE OF THE GOVERNOR | R* | — | — | — | — | — | — | — | — | C |
| | TEXAS WATER QUALITY BOARD | P | R | R | P | P | P | P | P | P | P |
| | TEXAS WATER RIGHTS COMMISSION | — | C | A | R | R | C | — | — | — | C |
| | TEXAS WATER DEVELOPMENT BOARD | P* | — | — | P | — | — | — | — | P | C |
| | TEXAS DEPARTMENT OF HEALTH RESOURCES | C | R | R | — | R | R | R | — | P | C |
| | GENERAL LAND OFFICE | P* | — | — | — | C | C | C | — | — | C |
| | TEXAS RAILROAD COMMISSION | — | — | — | — | C | C | — | — | — | C |
| | PUBLIC UTILITY COMMISSION | | C | — | — | — | — | — | — | — | — |
| | TEXAS PARKS AND WILDLIFE DEPARTMENT | C | — | — | — | — | C | — | — | — | C |
| | TEXAS AIR CONTROL BOARD | P* | R | R | — | P* | C | C | — | P* | — |
| | INTERAGENCY COUNCIL ON NATURAL RESOURCES AND ENVIRONMENT | C | — | — | — | — | — | — | — | — | P |
| | ATTORNEY GENERAL OF THE STATE OF TEXAS | — | — | — | — | — | — | — | P* | — | — |
| | STATE SOIL AND WATER CONSERVATION BOARD | C | — | — | — | — | — | — | — | — | C |
| | TEXAS DEPT. OF HIGHWAYS & PUBLIC TRANSPORTATION | — | — | — | — | — | — | — | — | — | C |
| REGIONAL AGENCIES | HOUSTON-GALVESTON AREA COUNCIL | P | — | — | C | C | C | C | — | — | C |
| | GULF COAST WASTE DISPOSAL AUTHORITY | P* | P | P | P | R | R | R | P* | P* | C |
| | RIVER AUTHORITIES | P* | P | P | P | R | P* | — | — | P | C |
| | CLEAR CREEK BASIN AUTHORITY | — | — | — | — | — | P | — | P | P | — |
| | HARRIS-GALVESTON COASTAL SUBSIDENCE DIST. | — | — | — | — | — | — | — | — | — | P |
| LOCAL ENTITIES | COUNTY, HARRIS CO. FLOOD/POLLUTION CONT. | P | P | P | P | — | P | — | P | P* | C |
| | CITY OF HOUSTON | P | P | P | P | — | R | R | P | P* | C |
| | GENERAL LAW CITIES | P | P | P | P | | R | R | P | P* | C |
| | HOME RULE CITIES | P | P | P | P | | C | C | P | P* | C |
| | WATER DISTRICTS | P* | P | P | P | — | — | — | — | P* | — |

# II - FEDERAL AGENCY OVERVIEW

## CHAPTER II - FEDERAL AGENCY OVERVIEW

### Introduction

In recent years the federal government has become increasingly involved in environmental quality. The National Environmental Policy Act (NEPA) passed in 1969 provides a policy background for environmental legislation. Unlike most subsequent legislation, NEPA is more procedural than substantive. The requirements of this Act apply to all federal agencies and affect provision of grants and permitting procedures. NEPA created the requirement of the EIS for all major federal actions significantly affecting the quality of the environment.

Since 1970 legislation has been passed at the federal level concerning air and water quality, environmental impact generally, coastal management, flood plains, comprehensive planning, pesticides, herbicides, dredge and fill, drinking water quality, hazardous materials, and deepwater ports. Additionally, programs that were initiated previously, such as housing, navigation, and soil conservation, have been administered in a different manner subsequent to the passage of the National Environmental Policy Act (NEPA). Therefore, there is a multiplicity of programs at the federal level, and there is a general requirement that these programs be administered in a manner that injects consideration of environmental impacts into the local decision-making process.

Generally, the federal government does not have the personnel nor the budget (and, in many cases, the authority) to directly administer the provisions of these acts. Therefore, the pattern has emerged of federal governmental agencies working with state, regional, and in some cases, local governmental entities in the actual administration of an act. As such, the system that has evolved is one of delegation and review rather than direct administration. However, provisions exist in many of these federal laws for direct implementation, if the delegation/review system fails.

In the context of Section 208 of P.L. 92-500, the U. S. Environmental Protection Agency is the federal agency with the greatest authority and direct control. However, through interagency agreements, programs in other agencies are to be integrated into the 208 planning effort. Therefore, the necessity exists to understand the gamut of federal agencies, their mandates, and their authorities.

U. S. Environmental Protection Agency
Regional Offices
1401 Elm
Dallas, Texas

## Introduction

The United States Environmental Protection Agency (EPA) was created in 1970 by executive order and has the general mandate to consolidate the federal government's various approaches to the control and improvement of the environment. EPA administers the Federal Water Pollution Control Act Amendments of 1972 and has direct review authority over Section 208 planning. EPA also has authority under the Clean Air Act Amendments of 1970; the Safe Drinking Water Act; the Federal Environmental Pesticide Control Act of 1972; and the Marine Protection Research and Sanctuaries Act of 1972, to name a few.

## Agency Role

As the central federal agency in the environmental area, EPA has a major role as the nationwide implementor of environmental control and improvement strategies. Under the FWPCAA, EPA was given more authority than under the other acts. Therefore, the agency occupies a central role in the administration of water quality matters.

## Organization

EPA is a part of the Executive Office of the President. The agency has a national headquarters in Washington, D. C., and ten regional offices throughout the United States (Figure 3). In the past, the national office has been responsible for the development of guidelines and regulations applicable to the U. S., with the regional offices being responsible for the implementation and administration of these regulations. Prior to the arrival of the Carter administration in Washington, a trend toward decentralization of decision-making authority was in evidence, with the regional offices being allowed to pursue courses of action more compatible with the needs and philosophies of the regions being controlled. At this time it is uncertain if this trend will continue.

Nationally, the Agency is headed by an Administrator and a Deputy Administrator who serve at the discretion of the President. An Assistant Administrator is also appointed in each of the five major operating sections: (1) planning and management; (2) enforcement; (3) water and hazardous materials; (4) air and waste management, and (5) research and development. Most 208-related responsibilities lie in the Office of Water and Hazardous Materials, Water Planning Section.

The Region VI office in Dallas is responsible for EPA-related matters in Texas, Oklahoma, Louisiana, New Mexico, and Arkansas. The Region is headed by a Regional Administrator, who also serves at the appointment of the President. Additionally, EPA maintains a local laboratory in Houston.

## Responsibility

In the water quality area, EPA has numerous responsibilities. EPA must (1) establish effluent standards for point source discharges for 1977, 1983, and for new sources; (2) permit point source discharges (the NPDES permit program); (3) administer planning programs under Sections 106, 201, 208, and 303 (e); (4) review receiving stream standards; (5) administer the construction grants program of Section 201; (6) pursue enforcement activities; and (7) coordinate water quality planning with other programs of EPA and other federal agencies. These responsibilities are expanded upon in the following sections.

## Operation and Maintenance

EPA does not operate or maintain wastewater treatment plants but does provide money for operator training.

## Planning

EPA has vast planning responsibilities. Generally, the agency does not do the planning but, instead, reviews plans which are completed at the State, regional, or local level. Section 106 of P.L. 92-500 provides money for state water quality planning generally. In return, the State submits a report to the EPA. Texas' report is titled the Continuing Planning Process. Under Section 303(e) P.L. 92-500, river basin planning has been conducted in many portions of the U. S. This planning effort is similar to the 208 process but has no institutional requirements and is a water quality data catalog with construction grant needs being specified. This 303 planning has been completed for Texas in what will be referred to as Phase I 303. This planning was conducted pursuant to regulations codified in 40 CFR Part 130. 201 facilities planning is administered by EPA, and EPA reviews such plans pursuant to regulations codified in 40 CFR 35.900. Section 208 designated areas are funded by EPA, and the planning is to be conducted pursuant to regulations codified in 40 CFR Part 35, subpart A.

Money is made available through EPA for the planning, and EPA will review the contracts, subcontracts, and final plans for these designated areas. Further, 208 planning for nondesignated areas is also being undertaken, but this process may be more appropriately called a Phase II 303 program. Designated 208 areas in Texas have received grants of approximately $8 million, whereas the nondesignated areas, representing most of the state land area, have received only $2 million.

## Finance

EPA has no authority to issue bonds or pursue similar financial undertakings. EPA does have money to issue grants to construct sewage treatment plants (STP). This Section 201 grants program consists of three steps. Step 1 involves the planning of the STP, and money is granted for planning. Then, once a facility plan has been approved, EPA may make grants for Step 2 (detailed design) and Step 3 (construction). Or, Steps 2 and 3 may be combined in a Step 2/3 grants program. Under the 1972 legislation, $18 billion was appropriated for STP grants. An additional $480 million was appropriated under the Public Works Employment Act of 1976. Each state is awarded a portion of the P.L. 92-500 money on the basis of a State Needs Survey conducted by EPA. Under this survey Texas has, to date, received less money than it felt it deserved. Therefore, Texas was singled out to receive $88 million under the Public Works Act, considerably more than other states. This money is distributed by the Economic Development Administration.

## Design and Construction

EPA has no authority to design or construct STPs. EPA does review design and construction of wastewater facilities for which grants are to be issued. Such a review includes cost effectiveness, as well as an Environmental Impact Assessment. An assessment is less specific and detailed than an Environmental Impact Statement and is sufficient when negative impacts are not considered to be present.

## Standard Setting

Under Sections 301, 302, 306, 307, 308, and 403 of P.L. 92-500, EPA is required to establish effluent guidelines for all point sources of pollution. These discharge guidelines are of three types: (1) a 1977 discharge standard defining Best Practicable Control Technology Currently Available (BPCTCA); (2) a 1983 discharge standard defining Best Available Technology Economically Achievable (BATEA); and (3) Best Available Control Technology (BACT). BPCTCA and BATEA apply to existing point sources, whereas the BACT standard applies to new sources of pollution. In addition to this discharge standard responsibility, the regional office has review authority over receiving stream standards set by the State.

## Permitting

EPA is charged with administering the Section 402 National Pollutant Discharge Elimination System (NPDES) permit. This permit is the mechanism for the implementation of the effluent discharge standards established by EPA. This permit program is delegated to the State but reviewed by EPA since the State program has not been certified. EPA has limited direct authority to control nonpoint sources, but the possibility exists that the NPDES could be conditioned in a manner that would effectively control nonpoint sources. The EPA has, in fact, come up with a proposed way of accomplishing this because of one of the many lawsuits they have lost.

## Monitoring

EPA has the authority to monitor both discharge quality and stream water quality, but the activities of the Houston local office are at this time restricted to sampling and analysis of effluent from municipal and industrial waste dischargers.

## Enforcement

EPA has substantial jurisdiction to enforce NPDES permit violations. Under Section 309 the Administrator of EPA is empowered to file either criminal or civil actions for NPDES permit violations. Provisions exist for injunctive relief, civil penalties of from $2,500 to $25,000 per day for first offenders, civil penalties up to $50,000 per day for second offenders, imprisonment up to one year for first offenders, and imprisonment up to two years for second offenders.

## Other Related Programs

In addition to the responsibilities set forth in the preceding sections, EPA has many other programs that may impact the final 208 plan being developed for a designated area. Only a brief summary of the more important of these programs is included in this document.

Under the provisions of the Clean Air Act Amendments of 1970, EPA has substantial power to affect development impacting air quality. Under Section 109, EPA set national ambient air quality standards applicable to all areas of the United States. Pollutants for which such standards were set include particulate matter, sulfur dioxide, carbon monoxide, hydrocarbons, nitrogen oxides, and photochemical oxidants. Under Section 110, states were required to develop implementation plans to attain and maintain these standards. Through monitoring, a determination was made of those areas violating the standards. These areas were designated as Air Quality Maintenance Areas (AQMA), and plans were to be developed in these areas to achieve compliance by July, 1975, since extended in many areas to July, 1977. If necessary, land use and transportation controls are to be developed for these areas. If the State does not develop an acceptable plan, the EPA is empowered to develop and enforce plans for these areas. The designated Houston 208 area is also an Air Quality Maintenance Area. Most of the designated area is within the boundaries of the Houston AQMA (designated for particulate matter and photochemical oxidants), with Galveston County being a separate AQMA (designated for particulate matter, photochemical oxidants, and sulfur dioxide). To date, AQMA regulations, transportation plans, and indirect sources regulations have been proposed for the Houston and Galveston areas. Certain of these regulations have been either withdrawn or weakened since their original issuance. Nonetheless, new industrial development will be slowed, if not curtailed, in this area, and the requirement to reduce Vehicle Miles Traveled (VMT) in the community by 7.5 percent per year is currently in existence. Under the Clean Air Act regulations, EPA Section 208 and Section 110 planning are to be integrated.

Under the provisions of the Safe Drinking Water Act of 1974, EPA is required to set regulations for drinking water quality. These regulations have been proposed but have not been issued in final form as of April, 1977. After these regulations have been promulgated, EPA will receive data concerning the tested water quality of municipalities. If these municipalities water does not meet required quality standards, then an order may be issued by the Administrator requiring the municipality to come into compliance. Additionally, EPA is given oversight authority regarding underground waste disposal, i.e., injection wells. EPA had claimed this authority under the NPDES program, but the Safe Drinking Water Act unambiguously grants EPA this authority.

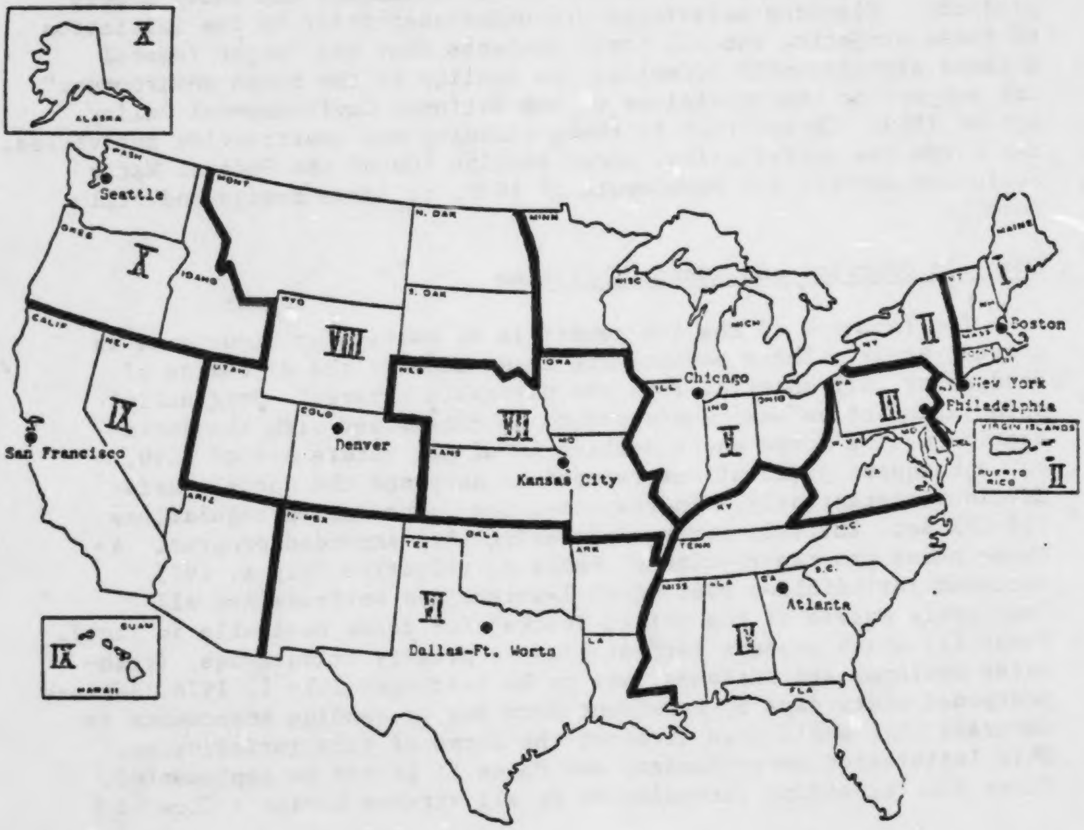
Under the Resource Conservation and Recovery Act of 1976 (RCRA), EPA is given considerable jurisdiction concerning solid waste and hazardous materials. Conceptually, the Act is very similar to the Clean Air Act, in that the state is to develop a plan to implement EPA regulations. If this plan is approved, then the

State becomes primarily responsible for the implementation. Subjects covered by the Act include open dumps, sanitary landfills, and the disposal of hazardous wastes.

Additionally, EPA is involved in the permitting of ocean dumping, the registering of pesticides, and the determination of the types of controls needed to protect the public from toxic and hazardous materials. Of all the provisions, however, the greatest potential impact may come from the requirement that 208 planning be integrated with the Clean Air Act requirements and functional programs of other federal agencies.

FIGURE 3

ENVIRONMENTAL PROTECTION AGENCIES REGIONS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U.S. Army Corps of Engineers
Galveston District
P.O. Box 1229
Galveston, Texas 77553

## Introduction

The U.S. Army Corps of Engineers is a part of the Department of the Army. As such, there is a national office in Washington that issues regulations applicable nationwide, and there are individual districts with jurisdictional responsibilities over the land areas within those jurisdictional boundaries.

## Agency Role

The Corps of Engineers is primarily a construction agency concerned with the implementation of certain projects that have been authorized by Congress. In particular, the Corps is engaged in the construction of flood control projects, navigation improvements and water supply projects. Planning activities are undertaken prior to the initiation of these projects, and all Corps projects that are "major federal actions significantly affecting the quality of the human environment" are subject to the provisions of the National Environmental Policy Act of 1969. In addition to these planning and construction activities, the Corps has jurisdiction, under Section 404 of the Federal Water Pollution Control Act Amendments of 1972, to issue dredge and fill permits.

## Specific Programs and Responsibilities

The issuance of the 404 permit is of particular importance in coastal areas. These permits are required "for the discharge of dredged or fill material into the navigable waters." Originally, this jurisdiction was considered to be consistent with the jurisdiction of the Corps under Section 10 of the Refuse Act of 1899, but subsequent judicial determinations expanded the Corps' jurisdiction substantially. In response, the Corps issued regulations (33 CFR Sec. 209.120) for administering this expanded program. A three phase program resulted. Phase I, effective July 1, 1975 included jurisdiction over coastal waters and wetlands and all "navigable waters of the United States" (or those navigable in fact). Phase II, which expands jurisdiction to primary tributaries, freshwater wetlands and wetlands, was to be initiated July 1, 1976, but was postponed sixty days by President Ford due to pending amendments in Congress that would have divested the Corps of this jurisdiction. This legislation never passed, and Phase II is not be implemented. Phase III, extending jurisdiction to all streams having a flow of 5 cfs or greater, is scheduled to be implemented July 1, 1977. Under this permit system, the regulated activity is not excavation (except in Section 10 areas) but is instead the discharge of dredged material or fill into navigable waters. The amount discharged must be in excess of 1 cubic yard to require the permit.

If the permit is required, then the issuance of that permit must be coordinated with the U.S. Fish and Wildlife Service, the EPA, the Advisory Commission on Historic Preservation, and other state and federal agencies. Additionally, if the action triggering the permit issuance is a "Major federal action significantly affecting the environment," an EIS has to be completed not only on the specific activity triggering the permit issuance but also on the project with which that activity is associated. Under certain situations, land development activities may be subject to this more comprehensive EIS requirement. Undoubtedly, activities such as fill development in marshland are covered by Section 404.

Department of the Interior
U. S. Fish and Wildlife Service
515 Rusk Street
Houston, Texas 77002

## Introduction

The U. S. Fish and Wildlife Service (FWS) is a branch of the United States Department of Interior. In addition to a national office in Washington, there is a regional office in Albuquerque, New Mexico, and a local office in Galveston.

## Agency Role

The U.S. Fish and Wildlife Service is charged with administering the federal wildlife refuge system, and administers the Endangered Species Act. Other acts under the auspices of the Fish and Wildlife Service include the Fish and Wildlife Coordination Act of 1958 and the Fish and Wildlife Act of 1956. The agency has general expertise in the area of wildlife and wildlife habitat; and often supports other agency activities and programs. At this time, a memorandum of understanding is being negotiated between the Fish and Wildlife Service and EPA regarding the FWS role in 208 planning.

## Specific Programs and Responsibilities

The information dissemination programs of the service are of much use in assessing wildlife habitats as well as those species to be found in an area. However, the major authority of the agency to affect programs is vested under the Endangered Species Act. Under this Act, endangered species, including mammals, birds, plants, fish, etc., are nominated as endangered species. If these species are found to be endangered, as per agency review, they are then placed on the endangered species list. The Secretary of the Interior can exercise the authority to propose "critical habitats." If such habitats are identified, then other federal agencies are prevented from taking actions which would destroy this habitat. If a habitat has not been designated, then other federal agencies must consult with FWS to determine if proposed projects interfere with habitats associated with endangered species. The mechanism for such consultation is generally the environmental impact statement.

Department of Commerce
Office of Coastal Zone Management
515 Rusk Street
Houston, Texas 77002

## Introduction

The Office of Coastal Zone Management (OCZM), is a part of the National Oceanic and Atmospheric Administration (NOAA) which is a branch of the Department of Commerce. The OCZM, which has only a national office in Washington, D. C., oversees the implementation of the Coastal Zone Management Act of 1972.

## Agency Role

Under the Coastal Zone Management Act of 1972, a state may choose whether they wish to participate in the program or not (unlike the water quality legislation). If they so wish, the state prepares an application to receive a planning grant. This application is made to OCZM. OCZM monitors the development of the planning documents and the plan, and if the plan meets the statutory requirements, OCZM is authorized to make grants to implement the plan. These grants are on a 2/3 federal, 1/3 state matching funds basis.

In order to receive an administrative grant, the state must prepare a plan that: (1) establishes coastal boundaries; (2) identifies those land and water uses having a direct and significant impact on coastal waters; (3) determines the permissibility of those uses; (4) establishes an institutional arrangement controlling those identified land and water uses; and (5) designates areas of particular concern. OCZM must evaluate the plans submitted by the states to determine if they meet these criteria.

## Specific Programs

The major program of OCZM is the approval of these Coastal Management Plans. However, OCZM does prepare technical studies addressing these requirements to aid the States in meeting the criteria.

Under the Coastal Zone Management Act of 1972, two aspects are of importance. First, EPA air and water standards are exempted from the jurisdiction of coastal management. In other words, a coastal management program cannot alter EPA wastewater discharge standards nor stream standards approved by EPA. Substantial interaction between the coastal management program and EPA air and water programs is to be expected, however, and the requirement exists that air and water programs of EPA are to be coordinated with approved coastal management plans. Additionally, the federal act requires that federal agencies conducting activities in the coastal zone conduct these activities in accord with state coastal management plans. This federal consistency provision is considered the major incentive to induce state participation in the coastal management program. The General Land Office of the state of Texas is responsible for state activity in coastal zone management planning.

U. S. Department of Agriculture
Soil Conservation Service
Regional Office
Post Office Box 992
Rosenberg, Texas 77471

## Introduction

The Soil Conservation Service (SCS) of the USDA is under the authority of the Department of Agriculture. There is a national SCS office in Washington and a State office in Temple, Texas. Additionally, there is a regional office in Rosenberg, Bryan, and Victoria and field offices in most counties in the H-GAC area.

## Agency Role

The SCS is primarily concerned with the development and conservation of soil, water, and plant resources. Traditional programs have been concerned with agriculture; although the SCS has become more active in urban areas in the last decade. The major role of the agency is to assist land users in the development of coordinated conservation plans or programs for the land unit and provide natural-resource-related information and technical assistance to anyone needing such information. Additionally, there are voluntary conservation programs that offer cost-sharing assistance to participating agricultural farmers with technical assistance from SCS to apply enduring conservation practices such as ponds and drainage systems and irrigation systems. The SCS cannot become active in any county unless invited into the area by the local soil and conservation district. Assistance is provided through soil and water conservation districts.

## Specific Programs

SCS is engaged in several varied program areas. They prepare soil surveys that delineate soil types and characteristics in detail on a county by county basis. This information is basic to questions such as the suitability of the soil for septic tanks, the erosion potential of various soil types, the agricultural suitability of certain soils and the ability of soils to support sanitary landfills. A separate but related program is the determination of "prime agricultural lands." This effort is currently being pursued nationwide as more concern is generated about the loss of these prime agricultural lands. At this time, no interagency agreements have been documented concerning the preservation of these lands by other federal agencies with specific programs, but such a memorandum will most likely be forthcoming within a year or so.

Additionally, SCS possesses substantial expertise in erosion and sediment control. This expertise includes knowledge of erosion potential, methods to control such erosion, costs and suppliers of such devices, and the vegetation considerations attendant to erosion control.

The SCS also has the responsibility for administration of the Resource Conservation and Development Program under authority of Section 102 of the Food and Agricultural Act of 1962 (P.L. 87-703). This program expands opportunities for conservation districts, local units of government, and individuals to improve their communities in multicounty areas.

SCS also administers upstream conservation programs such as the Watershed Protection and Flood Prevention Act of 1954 (P.L. 566) sponsored by soil and water conservation districts and other local organizations to control flooding, reduce sediment pollution, develop water supplies, and expand recreational opportunities through project action under P.L. 566.

## Department of Housing and Urban Development

Regional Offices
1401 Elm Street
Dallas, Texas

### Introduction

The Department of Housing and Urban Development (HUD) is a cabinet-level federal agency, with the Secretary being appointed by the President. The agency has regional offices with the Dallas regional office having jurisdiction over the Houston area. Additionally, there is a Houston local office.

### Agency Role

HUD is charged with vast responsibilities in the general area of housing, but these responsibilities are not limited specifically to housing. In general, these housing programs attempt to provide either low cost housing for persons otherwise unable to obtain housing or mortgage programs for individuals regardless of income level.

Additionally, HUD administers many grant programs that provide money to various levels of government to plan for the future of the community and to construct needed community facilities. These programs are, respectively, the 701 comprehensive planning program and the Community Block Grants Program.

HUD is also involved in the control of land development through the authority of the federal flood insurance program and the Flood Disaster Prevention Act of 1973. This flood plain program is one of the more controversial areas of HUD activity.

### Specific Programs

The federal flood insurance program and the Flood Disaster Prevention Act of 1973 are administered by the Federal Insurance Administration (FIA). Participation in the federal flood insurance program is voluntary, but the Flood Disaster Prevention Act of 1973 made it a requirement for homes constructed in flood prone areas under FHA and VA programs as well as for loans for flood prone land issued by lending institutions associated with the FDIC and FSLIC federal insurance programs. In order to qualify for the federal flood insurance program, a community applying for coverage must exert land use controls over land areas within the 100 year flood plain. These controls are generally manifested as building regulations regarding elevation of the slab, but obstruction of flow in the "floodway" is generally prohibited under the flood insurance program. FIA monitors the compliance of local communities and publishes maps of flood-prone areas. If a local community does not enforce these building regulations, it may be dropped from the program.

Section 701 of the Federal Housing Act of 1954 was amended by the Housing and Community Development Act of 1974. Section 701 provides funds to state, regional and local governments to undertake "comprehensive" planning activities. The 1974 amendments added two specific requirements to this ongoing program: (1) each 701 plan must have a land use element and (2) each 701 plan must have a housing element. The land use element is to specify growth policies for the governmental area receiving such grants. The degree of secificity of these policies relate directly to the level of government conducting the comprehensive planning effort, with more specificity being required as the planning area becomes smaller. The housing element similarly must specify housing policies for the area. At this time, it is not clear how rigorous the HUD review of these land use and housing elements will be. If the 701 grant recipient does not meet regulations, then the area is not eligible for further 701 grants. An interagency agreement exists that requires integration of these 701 plans with 208, air quality, and CZM plans previously discussed. These 701 plans must be completed by August, 1977 if the local and state agencies are to continue receiving 701 funds.

Additionally, the Housing and Community Development Act of 1974 made available Community Development Block Grants/Entitlement Grants. These grants have no matching requirements and the total amount available nationwide for 1977 is estimated in excess of 3 billion dollars. These grants combine seven program areas, including open space and water and sewer facilities. The formula for allocating amounts to various governmental levels is based on population, overcrowded housing, poverty level and population in cities in SMSA's.

HUD also is involved in providing mortgages for new and used housing through the Federal Housing Administration (FHA). FHA will certify that subdivisions are eligible for their mortgage programs, thereby making it unnecessary for the potential home buyer to seek conventional mortgages through lending institutions. FHA is now required, however, to complete environmental impact statements on new FHA subdivisions. This provision has only been recently activated in the Houston area and the effect of this requirement on the spatial distribution of housing in the Houston area is currently not clear. However, the possibility exists that certain housing trends in the Houston area could be influenced to a substantial degree if the EIS requirement is applied in a substantive fashion.

## Department of Transportation

Regional Offices
Federal Building
Fort Worth, Texas

### Introduction

The Department of Transportation (DOT) is a cabinet level agency of the federal government. The Secretary is appointed by the President.

### Agency Role

DOT has perhaps a less direct role than do the other federal agencies previously mentioned. The U. S. Coast Guard is under DOT and has general responsibilities in the area of oil spills. Both the Federal Highway Administration and the Urban Mass Transportation (UMTA) are also under the jurisdiction of DOT. Through their money for planning, design, and construction of transportation-related facilities, these agencies may have a considerable impact upon growth trends in an area.

### Specific Programs

Two programs are of primary importance. First, 3-C planning is funded by DOT and represents the major source of overall transportation planning monies. These transportation plans are, through interagency agreements, required to be coordinated with 208, Air Quality, CZM and 701 planning programs.

Second, UMTA has the ability to fund mass transit programs, and in particular demonstration projects. Houston has been selected as a recipient for 40 million dollars in UMTA funds for a Downtown People Mover (DPM) demonstration system in the Central Business District (CBD).

Department of the Interior
United States Geological Survey
515 Rusk Street
Houston, Texas 77002

## Introduction

The United States Geological Survey (USGS) is a section of the Department of Interior. This agency is primarily involved in gathering data, undertaking special studies, and performing consulting functions with various other federal, state, and local agencies.

## Agency Role

The USGS's role is one of technical and analytical support. The areas of expertise within the agency are in monitoring, surface and ground water hydrology, and geology (particularly related to earthquakes in other portions of the country). Additionally, the USGS undertakes detailed mapping work, generally under subcontract to other agencies.

## Specific Programs

Specific USGS programs are ongoing in the Houston area. Under contracts with State, regional, or local entities, the USGS is undertaking water quality and flow monitoring on most major creeks in the area. Specific analytical work is ongoing regarding flooding in the Houston area, and the USGS has been contracted by the Federal Insurance Administration to undertake certain flood plain studies in the Houston area. Additionally, the USGS locally has been documenting, monitoring, and analyzing the subsidence program in Houston for several years. At this time the USGS is undertaking detailed land surface mapping of certain quadrants of the Houston area, including topography.

## National Commission on Water Quality
Washington, D. C.

### Introduction

When Congress passed the Federal Water Pollution Control Act Amendments of 1972, the massive nature of the undertaking was noted. In order to provide a mechanism for determining potential "mid-course corrections," Congress made provisions for the National Commission on Water Quality.

### Agency Role

The role of the National Commission on Water Quality, as specified in Section 315 of the FWPCAA of 1972, was to make an assessment of the realities of the Act and report its findings to Congress. This entity's role, therefore, was one of oversight to determine the types of changes necessary in the Act to realistically meet its goals and objectives.

### Specific Programs

The only program of the National Commission was to undertake an independent study of the implementation of the Act through a series of technical studies and to report its findings to Congress. This report has been completed and transmitted to Congress, with both the summary report and the technical studies being available. The Commission has been recently abolished.

## Council on Environmental Quality
Washington, D. C.

### Introduction

The Council on Environmental Quality was created by the National Environmental Policy Act of 1969. This agency is part of the Executive Office of the President.

### Agency Role

The Council on Environmental Quality is not a regulatory agency but does have a major role in the development of federal environmental policy. Through the use of discretionary money in the budget, the CEQ may fund studies in areas of emerging environmental concern. CEQ has study responsibilities under various statutes, and it is the repository at the federal level for all environmental impact statements prepared by the various federal agencies.

### Specific Programs

The CEQ is specifically identified in Title II of NEPA as the federal agency responsible for the implementation and coordination of NEPA. This program includes the publication of general guidelines for EIS preparation and review, as well as the receipt and publication through notice of every draft and final environmental impact statement prepared by all federal agencies. This publication list is titled the 102 Monitor. Additionally, CEQ prepares an annual report concerning environmental matters generally and, from time to time, publishes reports on various environmental subjects.

## Federal Regional Council
Federal Building
Fort Worth, Texas

### Introduction

The Federal Regional Council is an interagency communications device which was created by executive order. A Federal Regional Council exists in each of the ten federal districts covering the United States. The Federal Regional Council serving the Houston area is located in Dallas.

### Agency Role

The Federal Regional Council is composed of eleven agencies with some ability to make grants within the federal district. The membership includes Department of Transportation; Department of the Interior; Department of Agriculture; Department of Commerce; the Community Services Administration; the Environmental Protection Agency; the Federal Energy Administration; the Department of Health, Education and Welfare; the Department of Housing and Urban Development; the Law Enforcement Assistance Administration; and the Department of Labor. The Federal Regional Council is a mechanism for coordination of agency practices, particularly relating to grant requirements and stipulations.

### Specific Programs

Although informal policy level discussions occur through the Federal Regional Council, the agency's main program relates to aiding local, regional, and state grant applicants in finding necessary funding sources. According to the Regional Council, an official wishing to make a grant application or needing a specific type of assistance may come before the Federal Regional Council and present the problem. Since the regional administrators of all agencies are represented, each agency will identify where they might be able to offer assistance, if at all. In this manner "red tape" associated with communications with the federal government may be alleviated to some degree.

## Office of Management and Budget
Washington, D. C.

### Introduction

The Office of Management and Budget (OMB) is a part of the Executive Office of the President and has quite a large impact upon presidential recommendations to the Congress regarding the budgetary requests for various agencies.

### Agency Role

The primary role of OMB is related to fiscal matters including specific recommendations relative to agency funding. This function is particularly important since the implementation of various legal requisites by various agencies would be impossible if they did not have the manpower and budget to support the work efforts needed to implement certain pieces of legislation.

### Specific Programs

OMB has two programs of interest: the "quality of life" review and the control over the budget. The Demonstration Cities Act of 1954 authorized Councils of Governments to be the clearinghouse for reviews of virtually all federal funding agencies by its cooperative agreements. Two levels of clearinghouses were established, the regional variety and the state variety.

In 1971, then head of OMB, George Schultz, instituted what is known as the "quality of life" interagency review process. This process has been uniformly applied to all EPA rules and regulations issued since this time but has been applied to other federal agencies only on an ad hoc basis. This review was to determine the social and economic impacts of proposed EPA regulations and led to a greater consideration of economic factors in the EPA regulatory process. EPA has chafed under this review since they were the only agency subject to it and since the review has slowed or stalled the issuance of certain regulations. Recommendations have been made concerning the restructuring of the "quality of life" review process under the Carter administration; in the interim, EPA unilaterally terminated the review process effective 1/25/77.

However, the most significant program of OMB is its power over the federal budget. Through its funding recommendations, OMB performs a pivotal function in determining the level of commitment addressing various program areas of the federal government. The power over the budget is perhaps more important, in a real-world sense, than the existence of power under a particular statute--without staff, policies are impossible to implement.

## Economic Development Administration
## Department of Commerce
Washington, D. C.

### Introduction

The Economic Development Administration is a part of the Department of Commerce. The primary purpose of EDA is to stimulate economic growth and development and to create jobs. The EDA distributes funds from the Public Works Act.

### Agency Role

As described above, EDA is concerned with stimulating growth, development, jobs, and employment. This is done through the designation of selected political jurisdictions as redevelopment areas based upon unemployment levels and median level of income. Once an area is designated, that area may make applications for planning, technical assistance, and construction grants.

### Specific Programs

The major program of EDA is related to the stimulation of growth and development in "redevelopment areas." These areas are identified nationally by EDA. The political jurisdiction (in most cases, counties) is notified by EDA that they meet the criteria for being designated as a redevelopment area. If the county wishes to be identified as a "redevelopment area," it must notify the EDA of its wish to be so designated and prepare an economic development plan. Once the area has been designated, it is eligible for grants of up to $1 million dollars to design and implement this economic development plan. These grants may be used for sewer and storm sewer collection systems, but to date, these grants have not been made for wastewater treatment facilities. The types of facilities eligible for funding are quite broad. To date, Galveston County has been designated as a redevelopment area, and Waller and Liberty have been identified as being eligible, although no formal designation has occurred

## SUMMARY

In summary, there are numerous federal agencies and federal agency programs that could have a substantial impact upon the shape of the 208 plan being developed in the Houston area. Through the interagency agreements in effect and currently being negotiated, the federal government is beginning to coordinate all programs to specific agency responsibilities. The actual effect of these coordinating memoranda is yet to be seen.

Further, it is difficult to assess the impact of the change in administration at the Federal level. The Carter administration is in the process of reorganizing the federal government and developing an energy program that promises to be the most comprehensive effort yet to alter existing consumption patterns. These elements have not been proposed in final form as of early April, but they could have a substantial influence upon 208 planning. This is particularly true of the energy program. It is important to recognize that most of those laws previously discussed were passed by a Democratic Congress but have until January been enforced by a Republican Administration. The presence of a Democratic Administration and their ability to pass legislation could be the most dramatic change of all, since the discretionary powers related to the enforcement of these laws is substantial.

Therefore, one would be misled if told that these federal laws have little or no effect upon the planning effort being undertaken locally. In fact, the opposite may be closer to the reality.

# III - STATE AGENCY OVERVIEW

# CHAPTER III - STATE AGENCIES

## Introduction

As is the case with the federal government, a multiplicity of agencies exist at the State level. Each of these agencies has been granted specific powers that are of importance in understanding the dynamics of the various functions and responsibilities of State agencies.

Unlike the federal government, the government of the State of Texas has not received direct mandates regarding environmental quality, although several environmentally related statutes do exist. The general approach of the State has been to encourage and accommodate growth rather than attempting to channel it or restrict it as has been the case in other states.

At the State level, the Texas Water Quality Board is the single agency most directly involved with water quality concerns. However, many other agencies, including the Texas Water Rights Commission, the Texas Water Development Board, the Texas Railroad Commission, and the General Land Office have powers or programs that may have a considerable impact on a 208 program. An understanding of these agencies and their powers is essential in making well-reasoned choices regarding institutional arrangements in the Houston area.

Jurisdiction over water at the State level is divided between several agencies. This division of water-related authority has recently been studied by a task force headed by the Lt. Governor. This study report has recommended the merging of the three major agencies with jurisdiction over water into a single agency. Legislation is currently being considered by the State legislature to implement these recommendations, but it is difficult to speculate whether such legislation will be passed or the specific reforms to be included in such legislation if it were to be passed. The important point is that the possibility exists that the following analysis of the Texas Water Rights Commission, the Texas Water Quality Board, and the Texas Water Development Board may be altered by this pending legislation. The discussion regarding agency merger is contained on page III-29.

## Governor of the State of Texas

State Capitol
Austin, Texas 78711

### Introduction

The Governor is the chief executive of the State of Texas. Under the provisions of P.L. 92-500, the Governor has a pivotal role in the development of 208 plans for the state.

### Agency Role

In Texas, the primary authority of the Governor's Office is in the area of appointments and budget recommendations. However, the Governor's Office provides the philosophical tone of the State government. Under the system of environmental laws passed at the federal level, the governor is often required to be consulted relative to the administration of the statute in that state. Such is the system required under Section 208.

### Specific Programs

Under Section 208, the Governor has selected the areas designated as 208 planning areas. Further, the Governor has the authority to designate the planning agency and, in Texas makes appointments of the members of the Planning Advisory Committees through his Special Advisor on Natural Resources. An additional activity is that the Governor must certify plans developed under the 208 process. The Governor must also designate management agencies for implementation of the plan. The Governor must also certify areawide wastewater management plans annually "as being consistent with applicable basin plans." Further, the Governor must designate, to the Administrator of EPA, one or more waste treatment management agencies for each designated 208 area. The Administrator must accept such a designation unless the Administrator determines that the agency does not have the authority required under Section 208 (c)(2)(A-1). Therefore, the powers and responsibilities of the governor of a state are substantial relative to 208 planning.

In the past, the Governor's office maintained a Division of Planning Coordination (DPC) that was very active in the resource management area. The Division of Planning Coordination was restructured in February, 1976, to become the Governor's Office of Budget and Planning. Simultaneously, Governor Briscoe appointed James M. Rose as his Special Advisor on Natural Resources and assigned staff from his office to provide support to the Special Advisor. Throughout the two-year period of 208 planning, there has been at least one professional staff member within the Governor's Office assigned to 208 planning. James Rose, Hugh Yantis, and Harvey Davis were appointed by the Governor to the 208 Management Committee. According to the Executive Order D.B. 18-A, the purpose of the Management Committee is to "...direct the nonpoint source management planning in the State planning area, and will coordinate the nonpoint source management planning with point source planning in the State planning region and with management plans in the designated areas." The Management Committee may offer advice to the Governor regarding 208 planning through the Special Advisor. The role of the Special Advisor, as defined in the Executive Order, places "...primary responsibility for the 208 Waste Treatment Management Program in the State of Texas will reside in the Governor's Office through this position." The consolidation of water agencies (9/1/77) into the Texas Department of Water Resources and the resignation of Mr. James Rose as Special Advisor have left the future of the Management Committee uncertain.

The Governor's Office on Budget and Planning has been designated as the statewide clearinghouse for A-95 review and serves a review and approval function relative to state agency applications to the federal government for funding.

## Texas Water Quality Board

Stephen F. Austin Building
Austin, Texas 78711

### Introduction

The Texas Water Quality Board (TWQB) is the primary State agency with jurisdiction over water quality. This role is quite expansive, and the agency has both administrative and field offices that are involved in the exercise of this authority.

### Agency Role

The TWQB is the agency most concerned with surface water quality including planning, monitoring, permitting, enforcement and liason with the U.S. Environmental Protection Agency. The TWQB administers the Texas Water Quality Act, the Disposal Well Act, the industrial waste management aspect of the Solid Waste Disposal Act, and jointly administers the Water Quality Enhancement Fund with the Texas Water Development Board. As such, the agency's role is very broad relative to water quality.

### Organizational Description

The agency is under the direction of a seven-member board. The Board is composed of three citizens appointed by the Governor to six-year overlapping terms, and four ex officio members including the chief executives of the Texas Parks and Wildlife Department, the Texas Department of Health Resources, the Texas Water Development Board and the Texas Railroad Commission. Day to day administration of the agency is under the Executive Director, and administrative activities are centered in Austin. Additionally, there are twelve district offices from which monitoring activities and enforcement operations are coordinated.

### Specific Responsibilities

The Texas Water Quality Board is the principal agency to whom many of the functions related to P.L. 92-500 have been delegated by EPA. Additionally, the agency is undertaking planning, monitoring, permitting and enforcement activities which are discussed in greater detail in the following sections.

### Operation and Maintenance

The TWQB has no authority to operate or maintain wastewater treatment facilities.

## Planning

Under Section 106, the TWQB receives money from EPA to aid in the development of the state's water quality planning capabilities. The planning division has completed the initial 303(e) River Basin plan series, with such work being supervised by the TWQB and completed through subcontractual arrangements. This work led to the identification of stream segments with substantial water quality problems. A study of the ability of these stream segments to receive waste has been completed. At this time the planning staff of the water quality board is coordinating the 208 planning activities in the designated areas and is undertaking direct administrative control of the 208 work in nondesignated areas. Again, substantial use is being made of subcontracts for specific work elements. Further, the TWQB oversees and approves 201 facilities planning efforts being pursued by the local governmental entities seeking 201 construction grants. The priority system for grant awards is administered by TWQB, after the general methodology has been approved by EPA. At the present time, this methodology is being revised to provide for the incorporation of 208 planning output. More generally, the TWQB has articulated its role in planning as one consisting of (1) the provision of statewide planning consistency; (2) ensuring that local plans are developed in a form such that planning efforts are integrated from planning area to planning area.

## Finance

TWQB has no authority to incur bonded indebtedness for wastewater treatment facilities. The majority of the funds used by the TWQB come from legislative appropriations. The major role of TWQB in the area of financing is to coordinate the federal 201 construction grants program and to administer the Water Quality Enhancement Fund in conjunction with the TWDB. The federal grants program is pursuant to sections 201 et seq. of P.L. 92-500, with each state being allocated funds as indicated by the State Needs Survey conducted by EPA. Once the dollar amount available to each state has been determined, a priority list controlling the disbursement of these funds is created. The creation of this list is the major function of the TWQB relative to financing. The master list is compiled from lists prepared for each basin, with the specific ranking being determined by a methodology developed by TWQB and approved by EPA. This list is updated annually at a minimum. The applicant may seek Step 1, Step 2 or Step 3 funding. (The award of a grant for Step 1 facilities planning in no way guarantees the award of Step 2 (detailed design) or Step 3 (construction) funds. In conjunction with the TWDB, the TWQB also administers the Water Quality Enchancement Fund of the State of Texas. In this case, a loan application is made jointly to the TWDB and TWQB, with the

TWQB review being technical and the TWDB review being financial. Both agencies must agree to an application prior to the award of the loan.

## Design and Construction

Except for reviewing 201 facility plans and water quality enhancement fund loan applications, the TWQB is not involved with review of wastewater treatment plans. Nonpoint source controls within the state and the region are general in nature and consequently the activities of the agency are minimal. The agency controls design requirements for feedlots, and does review Section 404 dredge and fill permits submitted to the U. S. Army Corps of Engineers.

## Standard Setting

The TWQB has authority over stream water quality standards and point source discharge standards. TWQB, through its discharge permit, establishes point source discharge standards consistent with minimum EPA criteria.

The TWQB has a more pronounced role in the setting of stream water quality standards. Such standards are set by the TWQB after public hearings for all major water bodies of the State. In many cases, these standards were developed during the basin planning process. Standards are periodically reviewed and changes may be made after a public hearing. As a general statement, these standards are to be upgraded over time such that the 1983 goal of the Federal Water Pollution Control Act Amendments of 1972 - that all waters of the U. S. be "fishable and swimable" - would be at least reflected in the standards if not in the data obtained through stream monitoring. The existing standards (1976) do not reflect the goal of fishable waters in all streams. In every case, the EPA must approve the stream standards established by the State.

## Permitting

Through the provisions of the Texas Water Quality Act, the TWQB is authorized to issue permits for the discharge of wastewater from point sources. No point source may discharge without a permit. Additionally, the TWQB administers the NPDES permit program of the EPA, even though the State has not been "certified" per se. This certification has not occurred since the penalty provisions of the Texas Water Quality Act are less severe than those established in the Federal Water Pollution Control Act Amendments of 1972. Discharge permits are issued for five years, with the conditions generally being determined by the EPA effluent guidelines, as previously discussed. Additionally, no permit is to be granted if the cumulative discharges into any stream segment are in excess of the calculated assimilative capacity of a given stream segment. These waste loads have been determined for all stream segments violating water quality stream standards, with such computations being based on two year, seven-day low flows. As a result of this "pollution budget" concept, discharge standards more stringent than those required under BPCTA, BATEA and BACT may be required. In addition to this point source control power, TWQB has limited non-point source control powers. These are related to feedlots and to the use of septic tanks in areas not suited to septic tank use.

The TWQB also certifies freshwater boat waste disposal and shore receiving facilities. In addition, they have the authority to certify sewer systems and have on several occasions.

## Monitoring

The TWQB is engaged in substantial monitoring activities for stream quality and for discharge effluent quality. The monitoring activities are delegated to the district offices, and stream monitoring is pursued at certain frequency intervals at designated points. Discharge quality monitoring is coordinated with the EPA discharge monitoring and the ability exists to monitor effluent quality on a "grab sample" basis or for longer time periods as necessary. The primary discharge monitoring tool, however, is the "self-reporting" system, where a discharger sends reports of effluent's quality to the TWQB. In most cases, TWQB relies primarily upon the "self-reporting" data to obtain a general profile of user performance, with the actual collection of discharge quality monitoring data being a function of agency personnel and the degree of violation being "self-reported." Additionally, the requirement exists that oil and hazardous material spills be self-reported to TWQB.

## Enforcement

TWQB is involved in enforcement activities, as are other levels of government. Generally, two levels of enforcement action exist. Minor violations may be met with citations that are turned over to the local authorities for enforcement activities. The District Attorney's office prosecutes such citations. More severe violations are addressed in one of two ways. First, the discharger is called in for an enforcement hearing. If an agreement can be reached regarding action to be taken to bring the facility into compliance, then the TWQB will issue an order requiring the facility to become compliant within a certain amount of time. If an agreement cannot be negotiated, then the TWQB certifies the suit to the Texas Attorney General's office for prosecution. The TWQB does not directly file suits for the enforcement of pollution violations.

## Texas Water Rights Commission
Stephen F. Austin Building
Austin, Texas 78711

### Introduction

The primary authority of the TWRC lies in the adjudication of water rights with its principal water-quality-related authority being the power to control the creation of water districts(WD).

### Agency Role

The primary role of the TWRC is to determine the rights to the surface waters of the State of Texas. However, the major role of the TWRC impacting water quality considerations is the oversight authority relative to utility districts. As such, the agency has a central role related to water quality management in the Houston area, particularly if the analysis is concerned with statutory power. To date, the TWRC has not exercised the full extent of its statutory power, particularly in the specific area of drainage systems.

### Organizational Description

The TWRC is composed of a three-member board with an Executive Director serving to administer the day-to-day business of the agency. Board members are appointed by the Governor for six-year terms. The Executive Director administers the agency, which is divided into six divisions: the permits division, districts division, legal division, water rights division, technical services division, and administrative division. The majority of the agency business is administered from the office in Austin, but a field office does exist in the Houston area.

### Specific Responsibilities

The Commission's specific responsibilities, in addition to those related to the determination of water rights, are primarily related to the creation and inspection of municipal utility districts. These responsibilities are discussed in greater detail as follows.

### Operation and Maintenance

The TWRC does not operate or maintain wastewater treatment plants. The Commission does receive applications for the creation of water districts. These applications include information about the water supply, wastewater treatment, and drainage systems that constructed by the proceeds of bonds issued by the WDs. Under the Water Code, the TWRC is to make an independent determination of the engineering and hydrological basis upon which specific designs for these infrastructure items were generated. Under the statute the TWRC has the jurisdiction to specify the type of wastewater treatment system and nonpoint source controls if these were necessary. At this time it is the policy of the TWRC to accept the judgments of the TWQB relative to the wastewater facilities and the local drainage authority relative to the drainage design.

## Planning

The TWRC is not engaged in planning activities to any great extent. The Commission is not authorized to conduct master planning activities for WDs and does not undertake such planning.

## Finance

The TWRC has no authority to issue bonds or to incur indebtedness related to wastewater treatment facilities. It does, however, review applications for WDs and makes a determination of ability of the WD to obtain the population needed to retire the bonds. The principal mechanism for such a determination is a market study that is submitted with the application to create a WD.

## Design and Construction

The Commission has direct control over the type of wastewater treatment facility to be constructed as well as control over the design and construction of the drainage facilities. Additionally, the field office in Houston makes periodic inspections of the construction of the facilities by the WDs to determine that those items covered by the bonded indebtedness are constructed as set forth in the application approved by the Commission.

## Standard Setting

The Commission has no direct authority over either discharge standards or receiving water standards. The Commission is to be consulted regarding the establishment of surface water standards by the TWQB.

## Permitting

Through the approval of the creation of utility districts, the Commission does have "permitting" authority, although this is not directly related to permitting for water quality.

## Enforcement

The Texas Water Rights Commission has no authority to enforce water quality discharge permits or surface water quality standards. They do have the authority to require that WDs construct their facilities as specified in the application.

## Texas Water Development Board

P.O. Box 13006, Capitol Station
Austin, Texas 78711

### Introduction

The Texas Water Development Board (TWDB) was created by constitutional amendment in 1957. The major responsibility of the TWDB is to ensure that the water supplies of the State are adequate for industrial, municipal and agricultural uses.

### Agency Role

Because of the importance of water to growth and development in the State, the TWDB has a central role in the State. The specific role is oriented toward planning and implementation of specific projects as opposed to a regulatory role. As such, the TWDB is to be distinguished from regulatory agencies such as the TWQB. At this time, the Executive Director of the TWDB also serves as the Governor's Special Advisor on Natural Resources, and the Executive Director serves as a member of the TWQB. Therefore, the agency has a major water quality role, even though direct regulatory control is absent. The Governor is the Chairman of ICNRE and has delegated the responsibility of chairing the meeting to his Special Advisor on Natural Resources. In addition, Executive Order has designated the Special Advisor as Chairman of the 208 Management Committee.

### Organization

The TWDB is under the administrative control of the Executive Director, with policy decisions being made by the Board members acting upon recommendations of the Executive Director. The agency is headed by an Executive Director and the Board consists of six members appointed by the Governor for terms of six years. The terms are staggered such that two members are up for appointment every two years. The agency is composed of six departments that report to the Executive Director. These are planning, general counsel, chief engineer, development fund manager, program controller and administrative services division. Most of the personnel of the agency are assigned to the planning department, chief engineer department, and administrative services division.

### Responsibility

The primary responsibility of the agency is to develop and update a State Water Plan, which involves a determination of existing and future water demand, surface water and ground water supplies, and the proposal of alternative methods of providing supplies to meet projected demands. Additionally, the agency administers the State Water Development Fund, and has the authority to sponsor water development projects or to lend money to those local entities wishing to sponsor or cosponsor water development projects. Additionally, the TWDB is the state clearinghouse for the Federal Flood Insurance Program.

### Operation and Maintenance

The TWDB has no authority to operate or maintain sewage treatment plants.

### Planning

The Texas Water Development Board has vast resources and mandates to engage in planning activities. The agency has primary state responsibility for population projections. Additionally, the agency is charged with the study and analysis of surface and ground water supplies and prepares plans to supply projected populations with water supplies if the existing supplies indicate future problems. The agency has the primary state responsibility for information relating to ground water availability and quality. Also, the TWDB is engaged in a long-term planning and modeling effort to determine the impact of flow reduction upon the productivity of bays and estuaries along the coast.

### Finance

The Water Quality enhancement fund is administered jointly by the TWDB and TWQB, with the TWDB being the "banker." After the TWQB certifies engineering plans, the TWDB may make loans for wastewater treatment construction programs if the application is financially sound. These loans fall within two categories: (1) loans for the 25% local funds required under the construction grants programs and (2) 100% hardship loans. These hardship loans generally are made to those governmental entities on the bottom of the construction grants priority list, but a governmental entity does not have to be on the priority list to be eligible. The fund has a ceiling of $200,000,000 in obligations, and the TWDB issues bonds as needed to raise the revenues pledged in the loans. At this time, $140,000,000 remains in the Water Quality Enhancement Fund. Loans to governmental subdivisions of the State must be repaid, with the interest rate being 5.56% per annum.

### Design and Construction

The Texas Water Development Board has no authority regarding design and construction of wastewater treatment facilities. If a municipality applies for a Water Quality Enhancement Loan, the TWQB certifies the engineering. The TWDB does have jurisdiction over the design and construction of levees within the state.

### Standard Setting

The TWDB does not have direct authority to set receiving water or discharge standards. It does have advisory authority regarding bays and estuaries of the state, with this role being related to the ongoing studies of salinity impacts or water development projects.

### Permitting

The Texas Water Development Board has no direct authority to issue permits for any activity other than the construction of a levee, weather modifications, and for the alteration of the water courses under exemptions as delegated to the Harris County Flood Control Districts.

### Monitoring

The TWDB has several water quality monitoring programs. The most comprehensive is in support of the salinity studies of bays and estuaries, with the TWDB having monitoring data for all major bays and estuaries of the state except for Galveston Bay. The TWDB undertakes special studies of ground water quality, with this data being published as ground water studies for various counties of the state. Additionally, some 5000 wells are to be included in a ground water monitoring system. Further, the TWDB in cooperation with the USGS pursues surface water monitoring efforts, and the TWDB also undertakes flow monitoring and sediment analysis.

### Enforcement

The TWDB has no enforcement authority related to wastewater discharge permits. The TWDB does report to the TWQB relative to ground water contamination, with the implication being that the TWQB would act, either through permit denial or through enforcement activities, if permitted activities were contaminating ground water supplies.

### Summary

The TWDB is very much involved in water quality related matters, even though a perusal of the direct authority seems to indicate a limited role. The agency is very well funded and has received considerable support from the State Legislature. Additionally, by being a member of the Texas Water Quality Board, the Executive Director has an impact upon water quality policy in Texas. The TWDB is also a member of the Interagency Council on Natural Resources and the Environment.

## Texas Department of Health Resources
110 West 49th Street
Austin, Texas 78756

### Introduction

The Texas Department of Health Resources (TDHR) is the major agency concerned with environmental health. Both the Texas Water Quality Board and the Texas Air Control Board were once subsections of the TDHR when it was known as the Texas State Department of Health. Therefore, this agency has been involved in water quality related endeavors for some time, although the degree of involvement is less than it once was.

### Agency Role

The Texas State Department of Health Resources is involved in activities relative to public health. To a large extent, the TWQB has assumed many of the functions which would seem to be public-health related, but the TDHR retains a water quality role. The TDHR is the primary solid waste disposal agency in the state, is administering the provisions of the Safe Drinking Water Act and is involved in shellfish sanitation testing. In short, the agency has a role largely limited to public health issues outside of air pollution.

### Organization

The TDHR has a Director of Health Resources, who is also a member of the TWQB. The Director is assisted by a Deputy Director for Health Resources and five Deputy Directors in five functional areas--health maintenance, special health services, preventable diseases, administrative services and environmental and consumer health protection. In addition to a State office in Austin, TDHR has numerous regional offices.

### Responsibilities

The agency is specifically involved in health aspects of water, including certification of drinking water supplies, monitoring bacterial levels in streams, certifying wastewater treatment plant design, training operators and certifying shellfish harvesting areas. Additionally, the TDHR is the State agency responsible for permitting municipal solid waste disposal practices. The responsibilities of the agency relative to water quality are directly involved with human health as opposed to general issues of water quality.

## Operation and Maintenance

TDHR does not operate or maintain any wastewater treatment facilities. It certifies operators of wastewater treatment facilities through an operator training school. In this regard the agency performs a necessary water-quality-related function.

## Planning

The degree of planning authority within one agency is difficult to ascertain. At this time, it appears that the agency has few, if any, planning activities that are funded to a great extent. However, the agency may become much more involved in planning activities through the pending implementation of both the Safe Drinking Water Act and the Resource Recovery and Conservation Act of 1976. The planning activities under the latter should be substantial, and as the State agency charged with solid waste management (except industrial, which the TWQB controls) the TDHR seems to be a logical recipient of these solid waste planning responsibilities.

## Finance

TDHR has no authority to issue bonds for wastewater treatment facilities and has no authority to incure debts relative to the construction of such facilities. They are supported by legislative appropriations.

## Design and Construction

The TDHR reviews the design and construction of wastewater treatment facilities funded through the Federal grants that are awarded in the State. They have developed in conjunction with TWQB, a set of design criteria related to municipal wastewater treatment facilities.

## Standard Setting

TDHR has no direct authority to set water quality or discharge standards. It is consulted relative to bacterial standards set by the TWQB. TDHR does set standards for drinking water quality and also establishes the criteria for municipal solid waste disposal in the state.

## Permitting

TDHR has no permitting authority relative to wastewater discharge. TDHR does "certify" public water systems regarding drinking water quality, and this certification process will be expanded to incorporate criteria for municipal water systems being developed by EPA under the Safe Drinking Water Act. Additionally, the TDHR does have authority to permit sanitary landfills and municipal solid waste disposal systems. Therefore, the agency has substantial authority related to permitting in health-related areas.

## Monitoring

TDHR has substantial monitoring responsibilities. Stream quality is sampled and analyzed by TDHR to determine bacterial concentrations. Additionally, municipal water systems are also tested by the TDHR as part of their certification process, and this monitoring activity should increase with the implementation of the Safe Drinking Water Act. Further, TDHR monitors bacterial concentration in bays and estuaries to delineate shellfish harvesting areas.

## Enforcement

TDHR has the authority to request the attorney general to enforce health related aspects of water quality standards. To date, the agency has been inactive in the enforcement area, normally deferring to TWQB's enforcement discretion.

## Operation and Maintenance

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General Land Office
Stephen F. Austin Building
Austin, Texas 78711

## Introduction

The General Land Office (GLO) is the manager of the State lands. This responsibility includes administration of mineral rights, control of submerged lands, and the supervision of oil and gas production activities. More recently, the GLO was designated as the agency to prepare an application and develop a plan for coastal management in Texas under the provisions of federal law.

## Agency Role

The GLO has a substantial role in the state through its management of the State owned lands. However, the major role of the agency relative to water quality is the planning activities that the agency has been pursuing for the past two years to develop a coastal management plan for the state. The agency has had a high profile during these last two years, and many of the institutional questions in 208 planning have been considered in the development of the state plan.

## Specific Programs

The only program impacting 208 planning efforts is the Coastal Management Plan that has been developed and forwarded to the legislature. At this time, the legislature has not voted on those portions of the Plan needing implementing legislation, but the approach developed minimized the necessity of seeking additional authority from the legislature.

Generally, the GLO's proposed coastal management system centers upon the existing permitting procedures at the State level. First, a relatively narrow area was designated as being within the jurisdiction of the coastal management program. The inland extent of the boundaries are brackish marshlands, estuarine areas and bay margins; meaning that very little land area inland from the bays was actually included within the program's boundaries. Second, any permit applied for within those boundaries is supposed to be submitted to the Interagency Council on Natural Resources and the Environment in addition to the applicable permitting agency. A review of environmental impact is then conducted in addition to the regular agency review, and the ICNRE is to make recommendations to the permitting agency regarding the disposition of the application if legislation currently pending is passed. The permitting agency is not bound to adhere to the recommendations of the ICNRE, however. In this manner, those land and water uses having a direct impact upon coastal waters are subjected to the coastal management plan review. In the Houston designated 208 area, only those discharge permit applications into coastal waters (i.e., the Houston Ship Channel, San Jacinto estuary) will be subject to the CZM review, and the coastal management permitting procedures should have little impact on the 208 area.

Additionally, the designated 208 areas have been classified as Areas of Particular Concern (APC) in the Hearing Drafts circulated by the GLO. These APC designations are for planning purposes only, but the extent to which such a designation may affect the 208 planning area is not clear at this time. Due to the existence of interagency agreements between the 208 program and OCZM at the national level, the impact of this designation may be construed at this time to be minimal. However, all federal agencies are to conduct their activities in accord with approved CZM plans, and in this manner, all federal agencies may be bound by the 208 planning efforts.

## Texas Railroad Commission
E. O. Thompson Building
Austin, Texas 78711

### Introduction

The Texas Railroad Commission is the State agency with control over oil and gas production in Texas. Unlike the case with other industrial sectors, the Railroad Commission's control over the oil and gas industry was not functionally severed with regard to water quality. Therefore, the agency maintains control over water quality aspects of the oil and gas industry in the State.

### Agency Role

The Railroad Commission's role regarding the oil and gas industry is one of control of the industry, and the agency maintains control over the casing procedures, wastewater discharge and oil spill reports from oil and gas operations. Therefore, the Railroad Commission's relationship to the oil and gas exploration industry is unique when compared to the other institutional arrangements of the State.

### Specific Programs

The principal activity of the Railroad Commission concerns the supervision and enforcement of laws and rules related to the conservation and prevention of physical waste in the production of oil and gas, including regulation. The Commission issues drilling permits and conducts safety inspections upon completion of each well. Production allowables for each well are set by the agency.

In 1965, the Commission was made solely responsible for the control and disposition of waste, abatement and prevention of water pollution resulting from oil and gas activities. Under the Well Disposal Act, the Commission must issue a permit for drilling or conversion of wells for disposal of oil and gas waste. The authority in this regard extends to both surface and subsurface waters. Since the passage of this legislation, the depth of casing, for example, has been subject to greater control.

The most important point, however, is that the Railroad Commission, and not the Texas Water Quality Board, has control over the discharge of waste from oil and gas exploration activities. Further, spills of oil and hazardous materials from pipelines are to be reported to the Texas Railroad Commission which has jurisdiction over transmission of these materials through these facilities.

## Texas Public Utility Commission

7800 Shoal Creek Boulevard
Austin, Texas 78757

### Introduction

The Texas Public Utility Commission (PUC) was created by the Texas Public Utilities Regulatory Act which became effective 9/1/75. This Commission may have regulatory authority in the wastewater treatment field.

### Agency Role

The Texas Public Utility Commission was created to regulate rate structures for certain utilities and to settle conflicts relating to boundaries of service areas. The PUC was vested with original jurisdiction over telephone, public electrical services, private electrical service in rural areas and private water and sewer systems in rural areas. The PUC also has limited jurisdiction over retail public utilities (including municipalities) where conflicts over service areas arise. The purpose of this jurisdiction is to avoid duplication, settle disputes and provide for orderly service area delineation.

### Specific Responsibilities

The PUC has little authority over governmental subdivisions of the State that are providing water and sewer service. Only when service area conflicts arise does the PUC gain jurisdiction over governmental subdivisions of the State. Even in this situation, the jurisdiction does not include the power to adjust rates, but is instead limited to settling the service area dispute. The major impact of this agency, therefore, is upon private sewerage systems in rural areas. The PUC has the power to set rates and to determine service areas for these private wastewater utility systems if that system is constructed or expanded after September 1, 1975. Further, all utilities subject to this jurisdiction were required to file rate structures with the PUC prior to September 1, 1976. Any change in the rate structure subsequent to the filing must be concurred to by a PUC order.

## Texas Parks and Wildlife Department

John H. Reagan Building
Austin, Texas 78711

### Introduction

The Texas Parks and Wildlife Department is the State agency primarily concerned with the fish and game of the state and with the provision of state parks.

### Agency Role

The major role of the agency is concerned with the study and understanding of the state wildlife resources, including the recommendation of state game and fishing regulations and the enforcement of game laws. Additionally, P&W enforces the shellfish harvesting regulations developed by the TDHR and charges a fee for the excavation of material from State-owned water bottoms. However, the Texas Supreme Court recently ruled in the Amdel decision that the Parks and Wildlife Department has no statutory authority to require the obtaining of a permit for dredging incident to navigation purposes. Nonetheless, the Parks and Wildlife Department does occupy a central role relative to fish and wildlife, and this position is reinforced through the agency's seat on the Texas Water Quality Board.

### Specific Programs

Very few of the P&W programs intersect with 208 planning, at least directly. The State wildlife agency is required by the Fish and Wildlife Coordination Act of 1957 to review and agree to the issuance of Corps of Engineers dredge and fill permits. To date, the major authority of the Corps lay in the navigable waters of the U.S., but with the expansion of the Corps authority as per section 404, the P&W Department will be gaining greater review authority. Additionally, the P&W Department is the primary State agency reviewing environmental impact statements from a wildlife perspective. Therefore, their comments are of particular importance in the subject area. Generally speaking, however, the P&W Department will have a more limited role in 208 than other agencies previously discussed.

## Texas Air Control Board

John H. Reagan Building
Austin, Texas 78711

### Introduction

The Texas Air Control Board (TACB) is the state agency concerned with air quality laws and regulations. The agency works directly with the EPA and is developing the state plan for attaining and maintaining the ambient air quality standards developed under the federal Clean Air Act Amendments of 1970.

### Agency Role

The role of the TACB is to protect and enhance the quality of the air resources of the State of Texas. As such, the major efforts of the agency are somewhat peripheral to the 208 water quality planning program. However, this agency has been directly opposing certain of EPA's programs under the Clean Air Act since 1973. As such, the actions of this agency have come to epitomize the issue of state's rights in the environmental arena. Therefore, the agency's philosophical role at the State level may be more important than its substantive role as it relates to water quality matters.

### Specific Programs

The potential exists that the Texas Air Control Board could have a significant impact upon state 208 planning efforts. This is particularly true due to the potential growth effects of air quality control programs, particularly transportation control plans and industrial growth. To date, the TACB has resisted EPA's efforts to force TACB into the transportation control and land use control arenas, but it is not clear how long the TACB can refrain from becoming involved in such efforts. Additionally, the EPA has the authority to set forth transportation control programs without the State agency's approval. However, the TACB has to date indicated that it does not wish to enter into the transportation control arena. TACB is most actively involved in permitting decisions relative to industrial atmospheric emissions. The enforcement of the Clean Air Act provisions may influence industrial growth throughout the state. The TACB permits are required both for the construction and for the operation of a facility and, on occasion, air quality considerations will impact waste disposal decisions in other environmental areas.

## Interagency Council on Natural Resources and the Environment

John H. Reagan Building
Austin, Texas 78711

### Introduction

The ICNRE evolved from a Senate resolution (SCR-68) and the Interagency Planning Councils Act of 1967. The ICNRE was created as the Interagency Natural Resources Council in 1968 by executive order. In 1971, the name was changed to the ICNRE. This Council is to coordinate joint planning efforts on matters relating to environment. The ICNRE has been proposed as the state agency with primary responsibility for the coastal management program. Legislation failed which would have expanded and altered the ICNRE. An example of their planning efforts are the "Environmental Policy - Guidelines and Procedures for Processing Environmental Impact Statements" and "Mitigation Committee Final Report."

### Agency Role

The role of the ICNRE is one of communications, and given the nature of the jurisdictional overlaps at the State level, this communications effort is an important function relative to 208 planning. At this time, the ICNRE includes as members the TWQB, TWDB, TWRC, GLO, Department of Agriculture, Railroad Commission, State Soil and Water Conservation Board, Parks and Wildlife, State Department of Highways and Public Transportation, TACB, Texas Industrial Commission, Texas Forest Service, Bureau of Economic Geology, Texas A & M (nonvoting), University of Texas (nonvoting), Texas Historical Commission (nonvoting), Governor's Office of State-Federal Relations, Texas Department of Health Resources, and the Texas Coastal and Marine Council. The Governor's Office serves as chairman. Those designated as nonvoting are classified as ex-officio. As such, the ICNRE provides the only vehicle for formal intergovernmental communication.

### Specific Programs

In addition to general communication on matters of common interest, the ICNRE has developed an informal State environmental impact statement process. This process is not binding upon member agencies, and there are no provisions for public participation, but the presence of such a process is important, nonetheless.

The ICNRE is the proposed vehicle for administering and implementing the coastal management program of the State, as developed by the GLO. S.B. 576 has been introduced in this session of the Legislature by Senator Schwartz to create new responsibilities for the ICNRE as the Natural Resources Council, expand the membership, and otherwise alter the ICNRE in accord with the recommendations of the GLO coastal management committee. Additionally, S.B. 577, the Coastal Coordination Act, specifies certain study and advisory functions for the reconstituted ICNRE.

In summary, this once obscure Council is coming to the forefront of State natural resources policy, and the Council is likely to have a larger role within the state.

## Environmental Protection Division, Texas Attorney General's Office

State Capitol
Austin, Texas 78711

### Introduction

The Attorney General (AG) is the primary legal officer of the state of Texas. The Attorney General is elected for a four-year term in the state general elections.

### Agency Role

The Texas Attorney General provides counsel for the State in civil and criminal litigation and furnishes legal advice to State agencies. The Attorney General maintains a field office in Houston to handle pollution violation suits and can seek civil fines of from $10 to $1,000 per day for each water pollution violation detected.

### Specific Programs

Environmentally related lawsuits are prosecuted by the Assistant Attorneys General assigned to the Environmental Protection Division. The Attorney General's Office has no statutory authority to independently prosecute violations of the state water quality laws and regulations. Instead, the AG's Office may only prosecute those violations which are certified to the AG's Office by the TWQB or other governmental entities. The Attorney General's Office does have the authority to independently prosecute water quality offenders under common law remedies as opposed to statutory remedies.

At this time the Attorney General's Office is not a member of the ICNRE. In the proposed Coastal Management Plan for Texas, it was recommended that the AG's Office be made a nonvoting member of the ICNRE. This proposal is reflected in S.B. 576, which has been introduced by Senator Schwartz.

## State Soil and Water Conservation Board

1018 First National Bank Building
Temple, Texas 76501

### Introduction

The State Soil and Water Conservation Board is the coordinating agency for the Texas soil and water conservation districts as specified by State law. Statewide, there are 188 soil and water conservation districts covering 99% of the state's land area. A very close working relationship exists between the Soil and Water Conservation Board, the SCS, and local districts.

### Agency Role

The State Soil and Water Conservation Board offers and provides assistance to districts in the execution of conservation plans and programs and in securing and coordinating private and intergovernmental coordination. As such, the Board has considerable expertise and reputation in the agricultural community of Texas.

### Specific Programs

The State Soil and Water Conservation Board has been appointed by the Governor as the planning agency for nonpoint source planning with respect to agricultural and silvicultural practices. The State Soil and Water Conservation Board has participated as a reviewing agency for 208 plan outputs.

Texas Department of Highways and Public Transportation
Highway Building
Austin, Texas 78701

## Introduction

The Texas Department of Highways and Public Transportation is responsible for formulating plans and policies for the location, construction, and maintenance of a comprehensive system of state highways and public roads.

## Agency Role

The Department constructs, maintains and operates interstate highways, U. S. and State-numbered highways, and farm-to-market roads in both rural and urban areas within the state. The Department also is responsible for maintenance of bridges and ferries. Funding for these activities is obtained through motor vehicle, motor fuel, and federal vehicle user taxes as well as federal funds.

## Specific Programs

The direct impact of this State agency upon water quality is limited. At a secondary level (related to land development guidance), the Department's approval of particular transportation improvements does ultimately affect water quality through development decisions. The Texas Highway Department supervises and controls federal funds for the construction and improvement of state highways and administers federal funds for the improvement of Texas roads not part of the state highway system. In addition, the Department cooperates with the Corps of Engineers, the Coast Guard, and the TWDB in the development of coastal highways. The Department also maintains a demographic data base and extensive aerial photographs.

Texas Department of Water Resources
Stephen F. Austin State Office Building
Austin, Texas 78711

## Introduction

The Texas Legislature, in its 1977 session, passed into law H.B. 1981 which combined the Texas Water Development Board, the Texas Water Rights Commission, and the Texas Water Quality Board. The new legislation created the Texas Department of Water Resources (TDWR) which is composed of the Texas Water Development Board, which acts as the legislative branch of the Department; an Executive Director, who functions as the executive branch; and the Texas Water Commission, which will function as the Department's judicial branch. The TDWR was organized into three distinct branches in order to ensure that those who establish Department policies are not the same as those who rule or enforce those policies.

The overall purpose of the new law was to assign the duties, responsibilities, and functions of the TWQB and the TWRC to the new Department. It was intended that this consolidation of agencies would reduce overlapping jurisdictions, end duplication of data gathering, and would reduce administrative costs.

The legislation created the TDWR and the Texas Water Commission effective September 1, 1977.

## Agency Role and Organizational Description

The Department of Water Resources is the agency given primary responsibility for implementing the provisions of the Constitution and the laws of the State of Texas relating to water. The former six-member Water Development Board is the governing body of the Department and is responsible for the legislative functions of the Department. The members of the TWDB as of September 1, 1977, would continue to serve out their terms.

The TWDB is responsible for setting policy for the Department in both water development and water quality matters. The Board also appoints the Executive Director of the Department.

The executive functions of the Department are vested in the Executive Director who will manage the administrative affairs of the Department. The Executive Director is responsible for enforcing and executing the rules, orders, and decisions of the Board and of the Texas Water Commission. In addition, the Executive Director is responsible for the performance of all planning and technical functions of the Department, including statewide planning, water supply studies and projections, preparation of data and technical programs required to support water resource conservation and management, and providing technical support required on all matters coming before the Water Commissioners.

The new Texas Water Commission performs most of the quasi-judicial functions that were provided by the former TWQB, the TWRC, and the TWDB. These functions include the issuance of water rights permits, water quality permits, and municipal and industrial waste permits. The Commission also supervises and regulates water district creation and operation and is responsible for conducting various hearings related to water resources and water quality within the state.

The Commission is composed of three full-time, salaried members who are appointed by the Governor (with the advice and consent of the Senate) to six-year staggered terms.

## Operation and Maintenance

The TDWR does not operate or maintain wastewater treatment plants. The Texas Water Commission does, however, supervise and regulate water district creation and operations. The Commission receives applications for the creation of water districts which include information concerning the water supply, wastewater treatment, and drainage systems that are to be constructed by the use of bonds issued by the water districts. The Commission makes an independent determination of the engineering and hydrological basis upon which specific designs were generated. Under the statutes the Commission has the jurisdiction to specify the type of wastewater treatment system and nonpoint source controls to be used, if necessary.

## Planning

The Executive Director of the TDWR is responsible for the performance of all planning and technical functions of the Department, including statewide planning, water supply studies and projections, and preparation of data and technical programs required to support water resource conservation and management.

Sec. 16.051 and Sec. 26.036 of H.B. No. 1981 state that the Executive Director shall prepare, develop, formulate, and from time to time, revise a comprehensive State Water Plan. The State Water Plan, which must be approved by the TWDB, is intended to be a flexible guide to State policy for the development of water resources in the state. In addition, the Executive Director is charged with the development and preparation of comprehensive water quality management plans for the different areas of the state as designated by the TWDB.

Other ongoing activities of the former TWQB and TWDB, as described elsewhere in this report, have now been assumed by the TDWR.

## Finance

Sec. 16.131 of H.B. No. 1981 states that the Texas Water Development Board of the TDWR may use the Water Quality Enhancement Fund of the State of Texas to provide financial assistance to political subdivisions of the state for purposes of water quality enhancement. If bonds or other obligations are purchased or if a loan agreement is approved by the Attorney General, water quality enhancement funds may be delivered to the political subdivision entitled to receive them and can only be used to pay for the construction costs of treatment works (Sec. 17.231).

The TDWR may, of course, accept federal funds for waste disposal or other water quality activities. Other ongoing financing activities of the former TWQB and TWDB, as described elsewhere in this report, have now been assumed by the TDWR.

## Design and Construction

The TDWR has direct and complete control over all wastewater treatment and drainage facilities built within the state. It is required by Sec. 26.034 that, before beginning construction, every person who desires to construct or materially modify any sewer system, treatment facility, or disposal system must submit and obtain the approval of the TWDB for all plans and specifications. In addition, the TDWR may inspect the construction of treatment facilities at any reasonable time to determine that the facility is being constructed as set forth in the application approved by the Board.

## Standard Setting

Sec. 26.011 states that the TDWR shall establish the level of quality to be maintained and shall control the quality of the water in the state of Texas. The TWDB has been given the role and exclusive authority to set water quality standards for all water in the state, including stream standards and point source discharge standards.

The Department, through its discharge permit, establishes point source discharge standards consistent with minimum EPA criteria.

The TDWR has an even more pronounced role in the setting of stream water quality standards. Before such standards are set or amended, however, the TWDB is required: (1) to hold public hearings at which any person may appear and present evidence for consideration; and (2) to consult with the Executive Director to ensure that the proposed standards are consistent with the objectives of the State Water Plan.

## Permitting

The TDWR is authorized to issue permits for the discharge of wastewater from point sources either into or adjacent to water in the state. No point source may discharge without a permit. Additionally, the TDWR has now become the administrator of the NPDES permit program of the EPA, even though the State has not been "certified" per se. Discharge permits are issued for five years, with the conditions generally being determined by the EPA effluent guidelines. It is the Department policy that no permit is to be granted if the cumulative discharges into any stream segment are in excess of the calculated assimilative capacity of the given stream segment. These waste loads have been determined for all stream segments violating water quality stream standards, with such computations being based on two-year, seven-day low flows.

In addition to this point source control power, TDWR has limited nonpoint source control powers and also authority to issue permits for the construction of levees, weather modification, and for the alteration of water courses.

## Monitoring

In accordance with Sec. 26.014 of the new law, the members of the Texas Water Commission, employees, and agents of the Department of Water Resources are entitled to enter any public or private property at any reasonable time for the purpose of inspecting and investigating conditions relating to the quality of water in the state. In addition, the legislation (Sec. 26.042) states that the TWDB may outline reasonable requirements for a person making waste discharges to monitor and report on his waste collection, treatment, and disposal activities.

At the current time, the TDWR is engaged in substantial monitoring activities for stream quality and for discharge effluent quality. The monitoring activities are delegated to the district offices, and stream monitoring is pursued at certain frequency intervals at designated points. Discharge quality monitoring is coordinated with the EPA discharge monitoring, and the ability exists to monitor effluent quality on a "grab sample" basis or for longer time periods as necessary.

The primary discharge monitoring tool, however, is the "self-reporting" system where a discharger sends reports of effluent quality to the TDWR. In most cases the TDWR relies primarily on the "self-reporting" data to obtain a general profile of user performance, with the actual collection of discharge quality monitoring data being a function of agency personnel, and the degree of violation being "self-reported." Additionally, the requirement exists that all hazardous material spills be self-reported to TDWR.

## Enforcement

TDWR is involved in enforcement activities, as are other levels of government. Whenever it appears that a person has violated any provision of H.B. 1981 or any rule, permit, or order of the Department, then the Executive Director may have a civil suit instituted in a district court. Through this procedure the Department may gain injunctive relief to restrain the person from continuing the violation or threat of violation. Such a suit may also ask for the assessment and recovery of a civil penalty of not less than $50 nor more than $1,000 for each act of violation and for each day of violation. Of course, both injunctive relief and civil penalty may be requested.

## Management and Coordination

As previously noted the TDWR is the agency given primary responsibility for implementing the provisions of the Constitution and the laws of the State of Texas relating to water. With the approval of the TWDB, the Executive Director is authorized to negotiate and execute contracts with persons or with federal, state, or local agencies for joint or cooperative studies and investigations of the occurrence, quantity, and quality of the surface water and groundwater of the state.

The Executive Director may also, with consent of the Board, negotiate and enter into contracts with any entity (federal, state, or local) for the purpose of carrying out the duties, powers, and responsibilities of the TDWR.

Governor's Water Resource Conservation and
Development Task Force
John H. Reagan Building
Austin, Texas 78711

The Governor's Water Resource Conservation and Development Task Force is an advisory group in the natural resources area, especially water. It is the vehicle for communication, coordination, and planning--much like the ICNRE. Created in 1973, the Task Force has met on a routine basis to address issues in the field of water resources. On various occasions the Task Force has discussed 208 planning and its impacts. The membership of the Task Force represents many of the regional and local entities which could be potential management agencies resulting from the 208 planning process. Many of the agencies represented on the Task Force are actively involved in 208 planning efforts, both in the designated and nondesignated areas.

# IV - REGIONAL AGENCIES OVERVIEW

# CHAPTER IV - REGIONAL AGENCIES OVERVIEW

## Introduction

As in the case with federal and state agencies, a multiplicity of regional agencies exist in the 208 designated area. Each of these agencies has specific jurisdictional boundaries, authorities, and capabilities. Many of the regional agencies overlap in both boundaries and authority.

In general, the regional agencies are involved in planning wastewater treatment and flood control. Boundaries range from county lines to river basins. Many regional agencies have broad authority to expand their activities through generation of interest in other areas for their services. For example, Gulf Coast Waste Disposal Authority is authorized to operate in three counties and within and outside its boundaries. Many of the regional agencies were created from basic legislation similar to conservation and reclamation districts.

At the regional level, Gulf Coast Waste Disposal Authority is involved in more activities regarding wastewater treatment, coordination, and operation. Other regional agencies consist of the following: Houston-Galveston Area Council, San Jacinto River Authority, Clear Creek Basin Authority, Brazos River Authority, Harris-Galveston Subsidence District, and the Association of Water Board Directors.

## Houston-Galveston Area Council

3701 West Alabama
Houston, Texas 77027

### Introduction

In the early 1960s, a requirement of regional planning was evidenced at the federal level. Texas responded in 1965 by passing the Regional Planning Commission Act. Any two-member governments within a region may form a single regional planning commission. The Houston-Galveston Area Council was formed in 1966 and immediately commenced the implementation of the Demonstration Cities Act that created what came to be known as the A-95 review process. At the present time, there are 24 Councils of Governments (COGs) in Texas.

### Agency Role

The Houston-Galveston Area Council's primary role is planning for the 13-county region, Figure 4, under its jurisdiction. As a voluntary membership organization, H-GAC gains its support in the region by involving interested public officials in the consideration of problems of a regional nature. The 13 counties over which H-GAC has authority include Harris, Galveston, Chambers, Liberty, Montgomery, Walker, Waller, Austin, Ft. Bend, Wharton, Brazoria, Colorado, and Matagorda. H-GAC focuses on areawide problems through comprehensive planning efforts and through the provision of services to constituent governments. H-GAC has been designated as the planning entity for the Houston 208 designated area.

### Organization

Membership in the H-GAC is open to all counties, cities, independent school districts, and soil and water conservation districts in the 13-county area; membership to date includes 102 member governments. Each member government designates a representative to the General Membership Body, which broadly governs H-GAC. From these representatives, 27 are chosen by a formula to sit on the Executive Committee, which meets monthly and represents the decision-making, governing body of the Council. A number of standing committees exist including the projects review committee, which operates under provisions of Circular A-95, Office of Management and Budget.

An Executive Director, selected by the Executive Committee, administers the day-to-day functions of the Council. Within H-GAC, there are three major departments--Physical Planning and

Development, Public Services, and Management Services. Additionally, the Environmental Division has the responsibility for 208 plan development and reports directly to the Executive Director. The Health Systems Agency for the 13-county region is controlled technically by the Area Health Commission, which is appointed by the H-GAC Executive Committee. The HSA was recently designated as a separate entity within H-GAC as per federal legislation. Additionally, the H-GAC has been designated by the Governor as the Metropolitan Planning Organization (MPO) for transportation.

## Specific Responsibilities

The major responsibility of H-GAC is to conduct and coordinate planning activities in several functional areas. These areas include water quality; law enforcement and criminal justice; housing and community development; parks, open space, and historical preservation; transportation and transit systems; health and hospitals; education; manpower planning; drug and chemical abuse; and aging services. Additionally, under the Demonstration Cities Act, the H-GAC conducts review and comment activities on federal grant applications as per the process outlined in the Office of Management and Budget Circular, A-95.

## Operation and Maintenance

H-GAC has no authority to own, operate, or maintain wastewater treatment plants. Regional councils in Texas under enabling legislation may contract with local governmental entities to undertake such activities.

## Planning Responsibilities

As described above, H-GAC has broad planning authority, with these activities generally being funded on a contract or grant basis with federal, State, and sometimes local entities. The H-GAC received a grant from EPA for approximately $1.8 million to develop an areawide plan for waste treatment management planning pursuant to Section 208 of P.L. 92-500. This grant was awarded subsequent to the appointment of H-GAC by the Governor of Texas as the planning agency for the designated greater Houston 208 area which includes Harris County and parts of five adjacent counties. This two and one-half year project is scheduled for completion by early 1978. The mandate of the planning effort is to develop a cost-effective plan to achieve "fishable and swimable" waters by 1983. The product will consist of technical planning aspects necessary to achieve this goal, including control of nonpoint sources if necessary, and a recommendation regarding what agency or agencies will administer the provisions of the plan. Prior to implementation the plan must be certified by the Governor and approved by the Administrator of EPA. The planning effort is being supervised by the H-GAC Environmental Division, with some work products being developed in-house, but with the majority being subcontracted to consultants or consulting teams and monitored by staff.

In addition to this water quality planning effort, many other planning efforts are being pursued at H-GAC. Of particular importance is the 701 planning process, which requires that a land use element be included in the submission due in August, 1977. If certified, this element could have a significant impact upon the technical plan developed under Section 208. Further, the transportation planning being undertaken could also have a significant impact upon H-GAC's 208 plan, since a change in transportation policy could also affect land use patterns. H-GAC is uniquely situated to combine the transportation and 701 planning efforts into the 208 planning effort if such plans are successfully completed.

## Finance

H-GAC has no authority to issue bonds or incur indebtedness in pursuit of planning activities. Additionally, H-GAC has no taxing authority. Therefore, the agency is dependent upon grants for planning to continue these planning activities. This factor is of importance as it relates to the provisions of Section 701 in particular. If the agency does not develop a plan to HUD's satisfaction, no further community development grants are to be made to the entity. The funding for the 208 program expires with the completion of the contract with EPA. Dues are collected from member governments, and the State does provide limited funding in the minimum amount of $15,000 annually. However, the major program areas are financed through federal and State grants. Additionally, H-GAC makes services available for a fee to other governmental entities.

## Design and Construction

H-GAC has no authority to design and construct wastewater treatment facilities. Regional planning commissions, however, have the authority to contract with local governments and private entities to design and construct wastewater treatment facilities. Additionally, through the A-95 review process, H-GAC may review and comment upon the design of treatment plants and the construction plans if those facilities are applying for the 201 construction grants money.

## Standard Setting

H-GAC has no authority to set standards for receiving water quality. It may, as part of the 208 planning process, make recommendations regarding stream standards. However, such standards must be enacted by the TWQB and approved by EPA.

## Permitting

H-GAC has no permitting authority. H-GAC does review and comment on federal grants applied for within their jurisdictional area, as per the A-95 review process.

## Monitoring

H-GAC has no authority to monitor either discharge or stream water quality. Recommendations regarding monitoring could be set forth in the 208 plan.

## Enforcement

H-GAC has no authority to enforce water quality standards. Recommendations regarding enforcement could be set forth in the 208 plan.

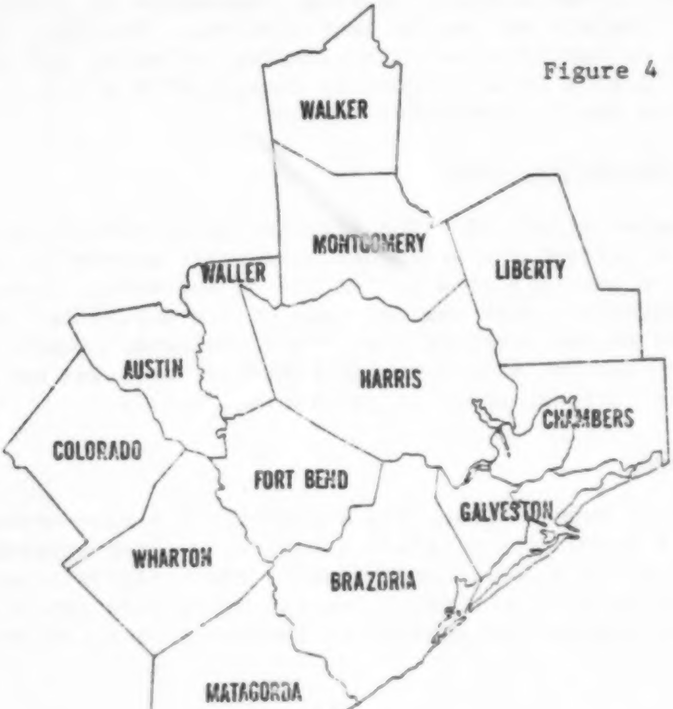

WALKER
MONTGOMERY
LIBERTY
WALLER
AUSTIN
HARRIS
CHAMBERS
COLORADO
FORT BEND
GALVESTON
WHARTON
BRAZORIA
MATAGORDA

Figure 4

## Gulf Coast Waste Disposal Authority

910 Bay Area Blvd
Houston, Texas 77058

### Introduction

Gulf Coast Waste Disposal Authority (GCWDA) was created in 1969 by the Texas Legislature as a regional water pollution abatement authority with jurisdiction in Chambers, Harris, and Galveston Counties, Figure 5. The primary purpose of GCWDA is to provide regional waste treatment facilities, including regulation at the regional level.

### Agency Role

GCWDA's primary role in its jurisdictional area has been to build industrial waste disposal facilities supported by tax free bonds and secondly to construct and/or operate municipal waste treatment facilities. Such municipal facilities are generally operated with an intent toward consolidation of smaller facilities.

As a regional waste disposal entity, the role of GCWDA is to regionalize wastewater systems in the three county area. GCWDA may acquire, construct, and operate waste treatment systems for both municipal and industrial users, and it has inspection, monitoring, and enforcement authority. GCWDA also has statutory authority relative to stream standard setting, regulation of solid waste disposal, air quality and septic tank disposal. Further, the agency has taxing authority as well as planning authority and capabilities. The agency's role in water quality management has not, to date, been developed to the full statutory extent.

### Specific Responsibilities

The major effort of GCWDA has been to construct, operate, and maintain industrial and municipal wastewater treatment facilities. The agency's activity area is limited to Galveston, Harris, and Chambers Counties, with the majority of its activities centering in the area to the south of the city of Houston. GCWDA has the ability to contract with other governmental entities not within their jurisdictional areas to provide service.

### Organization

GCWDA is under the general authority of a nine-member board composed of three gubernatorial appointees, three appointees of the Commissioner's Courts and three by the numicipalities within their area of authority. In turn, a General Manager is appointed by the Board; the General Manager has control of the day-to-day operation of the

Authority. At this time, GCWDA has three administrative divisions--operations, governmental programs, and finance.

## Operation and Maintenance

GCWDA has direct statutory authority to operate and maintain wastewater treatment facilities. At this time, GCWDA owns and operates some 40 treatment facilities in its jurisdicitional area, including municipal and industrial treatment facilities. Additionally, the Authority has 12 new plants under construction, 16 at the design stage and 7 under development.

## Planning

GCWDA has specific statutory authority to plan for regional waste treatment within the three county area. Additionally, the Authority has entered into contractual arrangements to conduct planning activities for the TWQB under Section 303 basin planning for the Lower San Jacinto River Basin in conjunction with the San Jacinto River Authority. The majority of the tasks pursued under this study were sub-contracted to local consulting firms. Instead of pursuing a regional planning effort, most of the work of GCWDA has been in technical planning related to the performance of the various treatment systems. This technical planning involves effluent quality management, seeking solutions to customers specific problems and considerations related to hazardous waste disposal at Texas City.

## Finance

GCWDA has broad powers related to the financing of wastewater treatment facilities. The Authority has ad valorem taxing power of up to 10¢ per $100 valuation if such taxing authority is approved by voters in the region. To date, this taxing authority has not been exercised. GCWDA also has the authority to issue either general revenue bonds secured by ad valorem taxes or revenue bonds to raise the capital for facility construction. To date, the revenue bonds have been the major financial resource utilized. The Authority also has the ability to assess user charges to entities receiving services from GCWDA. Revenue bonds issued by GCWDA are tax exempt, and the industrial clients served by GCWDA are able to utilize this financial advantage as follows. The industries whose wastes are treated by the Authority participate in the funding for plant construction and operation and, in effect, purchase the use of capacity in the plant. Capital expansion for industrial treatment is financed by issuing revenue bonds which are backed by those industries, within the group using the facility, whose bond ratings are the highest. The bonds issued by the Authority are then treated as tax-free municipal issues. To date, GCWDA has approximately $300 million in outstanding bonds.

## Design and Construction

The GCWDA may design and construct wastewater treatment facilities both inside and outside its boundaries. Currently, the Authority undertakes conceptual design and subcontracts detailed design to consulting engineers who aid in the selection of construction contractors to build the facility. Additionally, the Authority provides consulting services to industry relative to technical solutions at the conceptual design level.

## Standard Setting

GCWDA has the statutory authority to set water quality standards and criteria subject to approval by the TWQB. To date, this stream standard authority has not been utilized.

## Permitting

GCWDA has limited authority to regulate point and nonpoint sources of pollution. The primary role of GCWDA is to regulate solid waste disposal and septic tanks. To date, this statutory permitting authority has not been implemented. Additionally, GCWDA reviews TWQB permitting activities and may comment thereon.

## Monitoring

GCWDA has monitoring authority including authority over the disposal of waste from watercraft. However, GCWDA has restricted its activities to monitoring its own treatment facilities.

## Enforcement

GCWDA has the authority to sue for injunctive relief and damages. Any person who violates a rule or order of the Authority is subject to a civil penalty of not less than $50 nor more than $1000 for each day of violation. The Authority may sue to recover the penalty in a district court in the county where the violation occurred. Penalties are to be paid directly to the Authority. Since the Authority has not established rules, permits or quality standards, the enforcement authority is not meaningful.

FIGURE 5

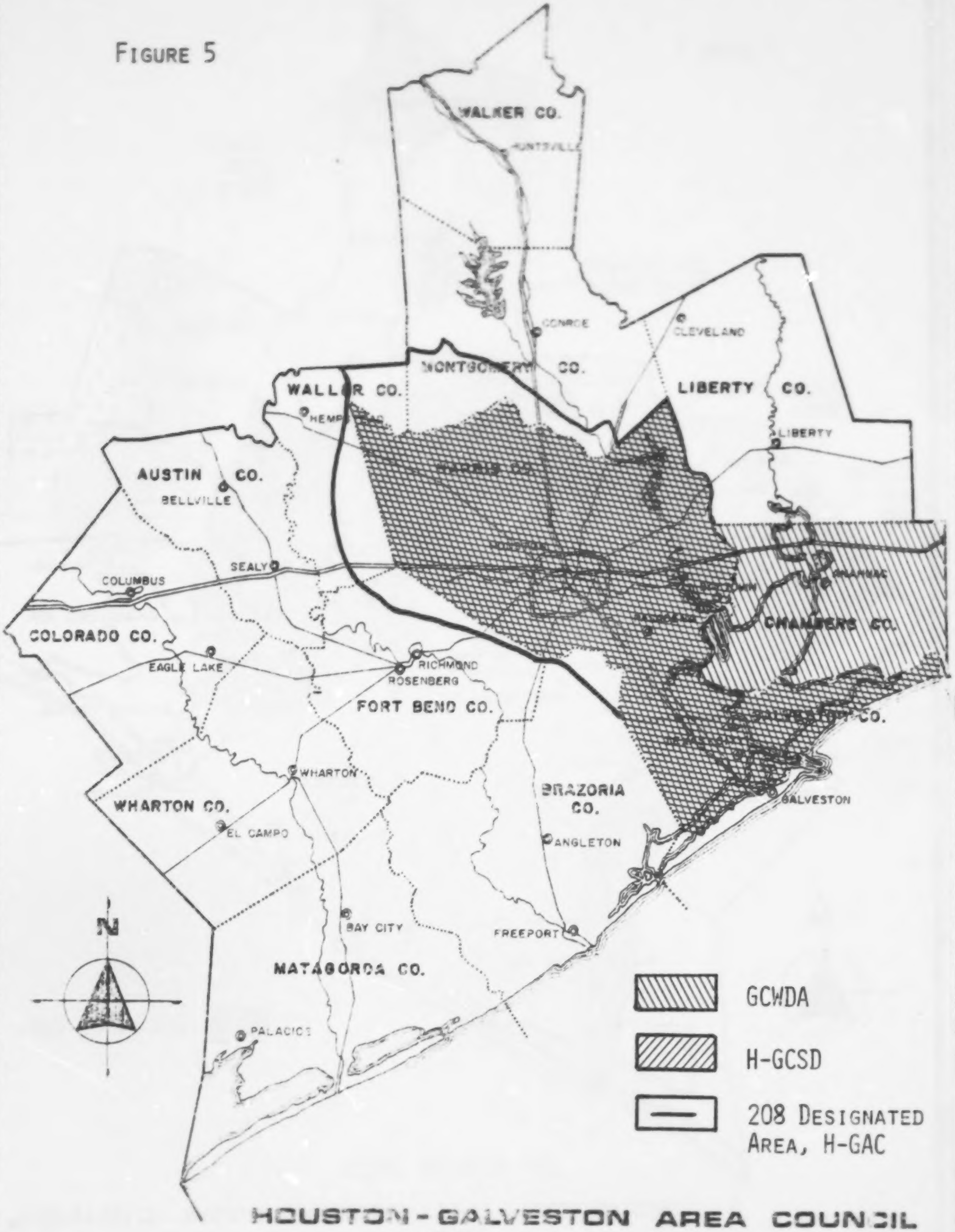
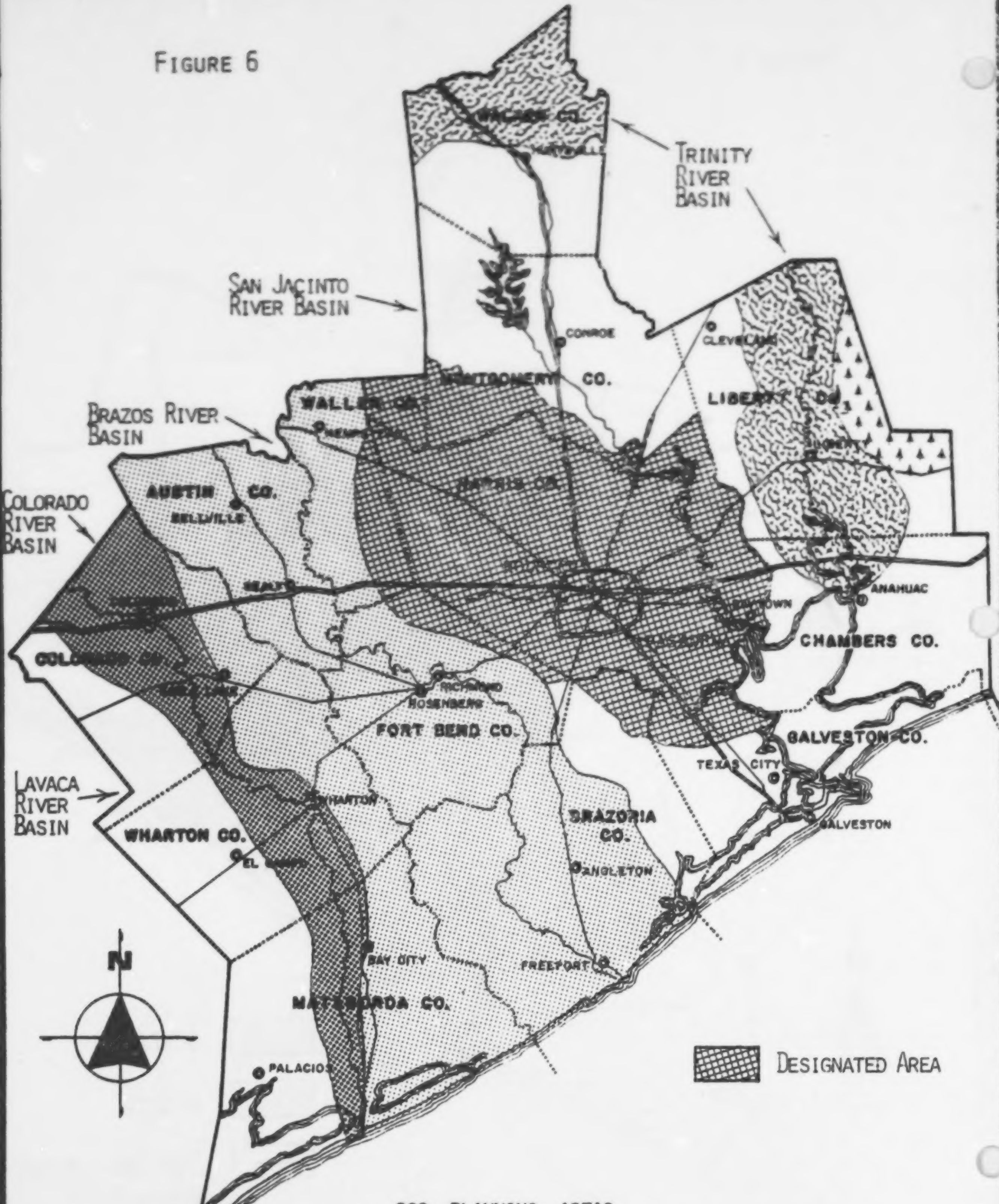

WALKER CO.
HUNTSVILLE
CONROE
CLEVELAND
MONTGOMERY CO.
LIBERTY CO.
LIBERTY
WALLER CO.
HEMPSTEAD
HARRIS CO.
AUSTIN CO.
BELLVILLE
SEALY
COLUMBUS
COLORADO CO.
EAGLE LAKE
RICHMOND
ROSENBERG
FORT BEND CO.
ANAHUAC
CHAMBERS CO.
CO.
GALVESTON
BRAZORIA CO.
ANGLETON
WHARTON
WHARTON CO.
EL CAMPO
BAY CITY
FREEPORT
MATAGORDA CO.
PALACIOS
N
GCWDA
H-GCSD
208 DESIGNATED AREA, H-GAC
HOUSTON-GALVESTON AREA COUNCIL

FIGURE 6


TRINITY RIVER BASIN
SAN JACINTO RIVER BASIN
BRAZOS RIVER BASIN
COLORADO RIVER BASIN
LAVACA RIVER BASIN
WALKER CO.
HUNTSVILLE
CONROE
MONTGOMERY CO.
CLEVELAND
LIBERTY CO.
LIBERTY
WALLER CO.
HEMPSTEAD
HARRIS CO.
AUSTIN CO.
BELLVILLE
SEALY
COLORADO CO.
EAGLE LAKE
RICHMOND
ROSENBERG
FORT BEND CO.
BAYTOWN
ANAHUAC
CHAMBERS CO.
GALVESTON CO.
TEXAS CITY
GALVESTON
BRAZORIA CO.
ANGLETON
WHARTON
WHARTON CO.
EL CAMPO
BAY CITY
FREEPORT
MATAGORDA CO.
PALACIOS
N
DESIGNATED AREA

208 PLANNING AREAS

**HOUSTON - GALVESTON AREA COUNCIL**

## River Authorities

Brazos River Authority (BRA)
Waco, Texas

San Jacinto River Authority (SJRA)
Conroe, Texas

### Introduction

Two river authorities have jurisdiction over portions of the 208 designated area. The San Jacinto and Brazos River Authorities were created by the legislature by special act. Each has a relatively comprehensive geographic coverage and is associated with a specific, major watershed area. Figure 6 identifies the river basin boundaries that are within the H-GAC planning area. The total statutory area of the BRA is the entire Brazos River watershed, exclusive of Freestone, Leon, and Madison Counties. For water quality planning, an additional area of approximately 2,000 square miles of coastal basin in Fort Bend, Brazoria, Matagorda, Wharton, and Colorado Counties have been assigned to BRA under agreements with TWQB.

### Agency Role

The comprehensive geographic coverage of these river authorities places them in an advantageous position with regard to planning, control, and use of natural resources, particularly water. Authorities have a major function related to supplying surface water for agricultural, domestic, and industrial uses; these entities are also engaged in flood control and water conservation activities, the preparation of plans for water quality management, and pollution abatement. Additionally, they may act as agents for regional waste disposal. Within their geographic areas, these entities have a substantial potential relative to water quality control and planning.

### Organization

River authorities are controlled by a board of directors consisting of members who are appointed to six-year terms. The officers of the river authority are then appointed by the board of directors. The Board of Directors of the San Jacinto River Authority is composed of six directors appointed by the Texas Water Rights Commission, and the Board of Directors of the Brazos River Authority is composed of 21 members appointed by the Governor and confirmed by the Texas Senate. The San Jacinto River Authority has a staff of 21 employees, and the BRA has a staff of 152 persons. The jurisdictional area of the BRA is approximately five times larger than that of SJRA.

## Responsibility

These authorities have broad legal powers to carry out flood control measures, water conservation and supply, soil conservation, wastewater planning and treatment systems, and application for federal flood insurance program certification within their jurisdictional areas.

## Operation and Maintenance

River authorities have the authority to own, operate, and maintain wastewater treatment facilities. Both the SJRA and the BRA are currently exercising this authority. The SJRA has acquired the wastewater treatment facility at The Woodlands, and the agency was at one tome actively involved in the operation and maintenance of sewage treatment plants in the Cypress Creek area. The BRA is operating three regional wastewater treatment plants, with the Sugarland facility being the only one in the Houston area.

## Planning

The major water quality planning functions of these authorities have been to conduct Section 303 basin planning activities under contract to the TWQB. These basin plans have been completed for Phase I, with the BRA completing the 303 plan for the entirety of the Brazos River Basin and with the SJRA in conjunction with GCWDA completing the plan for the San Jacinto River Basin. The Phase II program, involving the integration of the 208 planning for non-designated areas, is currently being initiated by both the SJRA and BRA for their respective jurisdictions, exclusive of the designated 208 planning areas. Therefore, both of these agencies have water quality planning experience. However, the major planning efforts of these authorities have been related to the provision of future water supplies including new impoundments. In pursuit of these water supply projects, substantial coordination is ongoing with federal and state, as well as local, entities.

## Finance

While their statutory powers differ to some degree, river authorities generally have the power to incur bonded indebtedness by either general obligation bonds supported by ad valorem taxes or revenue bonds. Neither the BRA nor the SJRA have assessed ad valorem taxes to date, choosing instead to use revenues from the sale of raw or potable water, user charges for minicipal waste disposal systems, charges for septic tank permits, the sale of hydroelectric power (BRA only) and recreational facilities use fees to fund the operating expenses of the entities and to retire the bonded indebtedness as such becomes due. River authorities have the authority to accept wastewater treatment grants from EPA pursuant to the 208 facilities grants program, and they have the authority to receive grants and contract to conduct planning activities.

## Design and Construction

Both the BRA and the SJRA have the authority to design and construct wastewater treatment facilities, but they generally subcontract such design and construction to consulting engineers and construction companies.

## Standard Setting

River authorities have no authority to set water quality or discharge standards. Through their involvement in the 303 planning process, they make make recommendations regarding such standards, but they must be implemented by the Texas Water Quality Board.

## Permitting and Regulation Authority

River authorities have little control over point source discharges, except to the extent that they are now preparing Phase II 303 plans which will specify the areas where new point sources are to be approved. The SJRA does have a permit program relative to septic tanks, as does the BRA. The BRA, however, limits its septic tank jurisdicition to the area around certain water supply lakes. River authorities have been given the necessary power to apply for certification within the Federal Flood Insurance Program, meaning that they have some statutory control over land development activities within the areas designated by the flood insurance administration.

## Monitoring

Both of these agencies are authorized to collect monitoring data related to stream water quality, with the analysis generally being related to drinking water quality. Nonetheless, these entities are engaged in monitoring activities. Through the 303 planning process, these entities are able to influence future monitoring activities to some degree.

## Enforcement

Neither of these agencies has statutory enforcement authority for the prosecution of violations of water quality discharge permits. They do have the authority to enforce their septic tank orders through prosecutions in the county courts.

## Clear Creek Basin Authority

18065 Upper Bay Road, Suite 255
Houston, Texas 77058

### Introduction

The Clear Creek Basin Authority (CCBA) was created in 1965 as a Conservation and Reclamation District and has jurisdiction over the Harris County portion of the Clear Creek watershed. The Galveston County portion of the watershed withdrew from the Basin Authority several years ago.

### Agency Role

The CCBA was originally intended to provide wastewater treatment facilities, but the CCBA is now primarily involved in monitoring and enforcement activities. The CCBA has been very active in the enforcement arena, and at this time has a lawsuit pending in state court against the City of Houston.

### Organization

The Clear Creek Basin Authority is governed by a fifteen member Board of Directors elected for two year terms. The initial Board was appointed by the Governor, but the public election process has now changed that initial appointed Board. Seven or eight members of the Board are elected every year. The CCBA has no employees. The CCBA does retain an attorney for enforcement activities, and has a sub-contractual arrangement whereby chemical analyses are performed by a laboratory at a local college. In addition, water samples are collected by Board members on the various committees of the CCBA.

### Responsibilities

The agency was originally intended to provide sewage treatment services, but has evolved in accordance with the Board of Director's policies into an "environmental watchdog" posture.

### Operation and Maintenance

The CCBA does have the authority to operate and maintain sewage treatment plants, but the CCBA has never assumed this function.

### Planning

The agency does not have any clearly delineated planning authority and has not been contracted to pursue such activities.

### Finance

The CCBA has no taxing authority and has not received appropriations from the State. The major source of funding has come from the results of environmental litigation against frequent and repeated polluters. At this time the CCBA has suits pending against the cities of Friendswood and Houston.

### Design and Construction

The Authority has the authority to directly design and construct wastewater facilities or to contract for such services, but has not exercised such powers to date.

### Standards Setting

The CCBA has no authority to set standards except to the extent that they become involved in public hearings and public participation processes established under planning programs.

### Permitting

The CCBA has no authority to permit point source discharges. The CCBA has asserted authority to control non-point sources and has developed proposed non-point source control regulations applicable within its jurisdictional area. These proposed controls include the requirement that any entity or person involved in land development activities: (1) submit a plan for storm water control, erosion control and sedimentation control; (2) obtain a permit from the CCBA prior to undertaking any earthmoving operations; (3) post a bond to insure construction in compliance with the approved plan and (4) conduct development activities in accord with the approved plan and agency rules and regulations. These regulations would be applicable if passed by the Board of Directors. The imposition of such controls would most likely spawn litigation concerning whether or not the CCBA possesses such land use control powers.

### Monitoring

The CCBA monitors wastewater discharge quality through a contractual arrangement whereby chemical analyses are conducted on wastewater samples.

### Enforcement

The CCBA has been most active in the area of the enforcement of violations of waste discharge permits. To date, the Authority has successfully prosecuted suits and has suits pending. The environmental protection division of the Attorney General's Office has been joined as a party in the City of Houston suit, but the TWQB has chosen not to join in this litigation.

## Harris-Galveston Coastal Subsidence District

1730 NASA Road 1
Houston, Texas 77058

### Introduction

The Harris-Galveston Coastal Subsidence District was created in 1975 by the legislature to regulate the withdrawal of groundwater via well withdrawal systems in Harris and Galveston Counties.

### Agency Role

This agency is the single entity with authority to regulate groundwater usage in the two-county area. The agency has issued permits for groundwater withdrawals, and will be attempting over time to decrease the use of groundwater resources in these two counties, particularly in those areas most seriously impacted by land surface subsidence. Additionally, the district will be actively seeking to establish viable surface water alternatives for those entities currently using ground water.

### Specific Programs

The Harris-Galveston Coastal Subsidence District has no responsibilities directly concerned with water quality. The only possible interface of the District and the 208 management program concerns the District's policy toward the construction of new groundwater withdrawal systems. If the District were to deny permits for groundwater use in certain areas of either Harris and Galveston Counties and if there were no surface water alternatives or if these alternatives were too costly, land development patterns (and the need for wastewater treatment facilities) could be influenced. To date, the District has shown no inclination to exercise its authority in this manner. Nonetheless, the authority and the possibility exist.

# V - COUNTIES & COUNTY AGENCIES OVERVIEW

## CHAPTER V - COUNTIES AND COUNTY AGENCIES OVERVIEW

### Introduction

There are 254 counties in Texas. Some forty states have granted counties extensive powers, but the State of Texas has limited the extent of county ordinance-making powers. At this time the legislature is considering a number of bills to give counties ordinance-making authority. Until such bills are passed, the counties of Texas will have only limited authority incrementally expanded by statutes.

All of Harris County and parts of Waller, Ft. Bend, Brazoria, Galveston, and Montgomery Counties are in the designated 208 area.

### Agency Role

Counties engage in many activities in unincorporated areas, but those activities must be specifically allowed by statute. Generally, road and highway construction is a major function of counties, and since 1969, counties have been authorized to engage in flood plain management activities. In addition, counties record vital statistics, conduct elections, provide for law enforcement personnel, administer justice, and provide for the maintenance of public health and welfare through maintenance of hospitals, fire-fighting facilities, libraries, parks, agricultural extension agencies, and civil defense offices.

### Organization

Each county in Texas is governed by an elected County Judge and four Commissioners from precincts within the county. The four Commissioners and the County Judge form the membership of the Commissioner's Court, with the County Judge being the chief administrative officer. Each of the Commissioners is responsible for activities within their precincts. Other county officials are elected at large including a treasurer, sheriff, tax assessor-collector, clerk and attorney, to name a few. Functional responsibilities are by precinct or fall under the specific elected post.

### Specific Responsibilities

Counties have rather limited responsibilities relative to water quality. The major areas of responsibility have been somewhat peripheral including subdivision plat approval authority, drainage and flood plain controls, septic tank control powers, and sanitary landfill operation powers. These powers were somewhat expanded by the Texas Attorney General's opinions.

## Operation and Maintenance

According to a 1972 Attorney General's opinion, counties have the authority to operate and maintain, or to contract for the operation and maintenance of, regional or areawide wastewater collection and treatment facilities. None of the six counties in the designated 208 area have undertaken such responsibilities.

## Planning

Counties engage in planning activities to a limited extent relative to the exercise of subdivision plat approvals and relative to the construction of county roads. Additionally, certain counties are engaged in flood plain planning and management, including planning for flood control purposes. These planning functions are related to specific county responsibilities, and to date, counties in the Houston area have not extended their planning activities into the realm of wastewater management.

## Finance

Counties have the general authority to levy taxes to collect revenues and have the authority to incur bonded indebtedness. This taxing authority is limited to 25¢ per $100 valuation for public works and 30¢ per $100 valuation for flood control. A county cannot levy taxes in excess of 80¢ per $100 valuation in any given year. A 1975 Attorney General's opinion broadened the waste disposal authority of subdivisions of the state by ruling that any city, county, or other political subdivision may issue bonds for the acquisition, construction, and operation of waste disposal systems. Counties may charge user fees and assessments for such services.

## Design and Construction

According to the aforementioned Attorney General's opinion, counties may either directly or through contracts construct wastewater treatment facilities. To date, none of the area counties have assumed this power, and if they were to do so, they would most likely contract with private engineering firms for the provision of design services and construction.

## Standard Setting

Counties have no authority to set or establish water quality standards.

## Permitting

Counties have no direct statutory control over point sources of pollution. Counties do have the power to regulate private sewage facilities in accord with the Texas Water Quality Board. If the Commissioner's Court determines that private sewage facilities in an area within the County threaten to injure public health or pollute waters, the county may hold hearings and issue regulations and orders similar in type to those issued by the TWQB. However, prior to the county's regulations taking effect, the TWQB must give its written approval. After a county establishes a permitting system, no person may install or use a private sewerage facility without obtaining a permit.

Counties also have limited authority to review subdivision plats within their jurisdiction and outside of city limits. The review of these subdivision plats is limited to street width, design, paving and drainage considerations. The degree to which such drainage reviews could be utilized as a non-point source control strategy is not clear at this time. However, the authority relative to subdivision controls and building controls was greatly expanded in 1969 by the passage of legislation enabling all governmental entities to take all necessary and reasonable actions to comply with the requirements of the National Flood Insurance Program, including the conduct of flood plain management. A separate piece of legislation authorizes counties bordering the Gulf Coast or its tidewater limits to enact and enforce regulations which regulate, restrict or control the management and use of land, structures and other development in flood prone areas in such a manner as to reduce the danger of damage caused by flood loss. The extent of the power offered by these flood plain statutes appears to be very broad, including zoning of flood hazard areas.

## Monitoring

Counties have the authority to monitor water quality and discharge quality under the general statutory authority related to public health. Most counties, if involved in monitoring activities, are concerned with monitoring wastewater discharge quality.

## Enforcement

Counties have the authority to enforce the provisions of the Texas Water Quality Act through suits filed by the District Attorney's office. Although provisions exist for both criminal and civil penalties, counties generally pursue criminal actions.

Harris County
301 San Jacinto
Houston, Texas 77002

## Introduction

Harris County encompasses the majority of lands included in the Houston designated 208 planning area. In addition to the County Judge and Commissioners, there are a number of functional departments that have responsibilities and functions of importance to the 208 planning program. Such functional departments include the Harris County Flood Control District, a conservation and reclamation district created by special statute, and the Harris County Pollution Control Department.

## Agency Role

Counties have a limited role relative to waste management due to the absence of general ordinance making power. Nonetheless, specific statutes give the county certain powers and responsibilities, and Harris County has a major role relative to drainage and the enforcement of wastewater discharge permit violations.

## Organization

As discussed in the general description of counties, the chief executive officer of the county is the County Judge and there are four County Commissioners elected from precincts. The heads of the various functional entities, i.e., the Flood Control District and the Pollution Control Department, report to the Commissioner's Court, but these entities have substantial discretion in the day-to-day operation of their departments. In addition to the two aforementioned entities, there also exists a Harris County Engineer's Office and a Harris County Parks Department. All of these entities have functions to perform that are of importance to the 208 planning program.

## Responsibilities

The county is responsible for the provision of certain services and for performing certain regulatory functions, primarily in the areas of flood control and drainage. An additional responsibility lies in the enforcement of violations of wastewater discharge permits.

## Operation and Maintenance

Harris County does not operate or maintain wastewater treatment plants. The County does maintain drainage systems.

## Planning

Harris County is involved in reviewing subdivision plat plans. The primary long-range planning function is vested in the Harris County Flood Control District. This flood control planning is related primarily to assessing the magnitude of the flooding problem in various portions of the County (including areas within the City of Houston) and attempting to find solutions to these problems, i.e., rectification of stream channels to increase capacity. On the larger bayous and streams, the planning and implementation work is often coordinated with the U. S. Army Corps of Engineers. There is coordination between subdivision planning and flood capacity planning. The extent of this activity has increased over previous years. Harris County is active in parks planning, with efforts being underway at this time to increase the park acreage in Harris County.

## Design and Construction

Harris County is not engaged in the design or construction of wastewater treatment plants. Harris County is involved in the design and construction of drainage improvements through the activities of the Harris County Flood Control District.

## Standard Setting

Harris County does not have authority to set standards relative to wastewater quality or stream quality. The County has set design standards relative to drainage.

## Permitting and Regulation

A primary area of regulation within Harris County is the issuance of building permits relative to delineated flood hazard areas. Through the County Engineer's office permits are issued to builders to construct structures. A Class A permit is awarded if the structure is outside of delineated flood plain areas, and a Class B permit is required if the structure is within a delineated flood hazard area. These regulations require that certain requirements relative to elevation of building slabs or relative to flood proofing must be met if the Class B permit is to be issued. Further, both the flood control district and the County Engineer's office must review subdivision plats which are filed in unincorporated areas of the county. To date, this review has been completed with respect to the delineation of flood prone areas and with respect to the provision of adequate drainage easements, but authority exists to regulate the combination of a subdivision drainage system with an overall flood plain management program. Additionally, the TWRC consults with the

Harris County Flood Control District prior to approving drainage plans of MUD's; therefore, substantial discretion exists to affect drainage at many different levels of governmental review.

The Harris County Pollution Control Department is also actively involved in the wastewater discharge issuance process of the TWQB. In particular, the Department comments upon the proposed discharge criteria and makes suggestions regarding permit terms and conditions. The TWQB has the discretion to determine whether these comments are to be incorporated or not.

## Monitoring

The primary monitoring function at the County level is vested with the Harris County Pollution Control Department. The major monitoring thrust is to investigate citizen complaints relative to air and water discharges. This monitoring effort is by "grab sample," with the intent being to develop information relative to legal action. In addition to investigation of specific complaints, a random sampling program of major wastewater dischargers is in existence. Some monitoring relative to water quantity is undertaken by the Harris County Flood Control District, with this information being obtained in conjunction with the U.S.G.S.

## Enforcement

The Harris County Pollution Control Department enforces air and water quality standards through the procedures of seeking criminal prosecution for noncompliance with wastewater discharge permits. These suits are forwarded from the Harris County Pollution Control Department to the County District Attorney's office.

## Harris Soil and Water Conservation District

P. O. Box 4223
Houston, Texas 77210

### Introduction

The Harris Soil and Water Conservation District was created by petition and election, and has jurisdiction over all of Harris County. The activities of the Soil and Water Conservation District are administered by a Board of Directors composed of five members elected from different geographic areas of the County. The Directors, referred to as District Supervisors, must be owners of land within the District subdivision from which they are elected and must be actively engaged in farming or animal husbandry.

### Agency Role

The District is primarily involved in disseminating information to area landowners concerning soil erosion prevention, assisting in the development of erosion prevention plans and in coordinating technical assistance from the Soil Conservation Service to landowners in erosion prevention techniques.

### Specific Programs

As indicated above, the Soil and Water Conservation District is basically involved in convincing farmers to voluntarily apply erosion control and runoff abatement techniques to their farmland. The Harris County Soil and Water Conservation District has invited the United States Department of Agriculture, Soil Conservation Service, to open a Harris County office, which the SCS has done. These two entities work together with local landowners to pursue such voluntary erosion control measures. Another major program pursued jointly by these entities has been the publication of the Harris County Soil Survey, a document of many applications to water quality planning purposes. Therefore, the Harris Soil and Water Conservation District in conjunction with the Soil Conservation Service, has considerable expertise and knowledge concerning non-point source control problems and solutions. This entity does not have much direct authority, however. Other Soil and Water Conservation Districts in the designated 208 area are:

Coastal Plains SWCD - Rosenberg, Texas
Montgomery - Waller SWCD - Huntsville, Texas
Navasota SWCD - Waller, Texas
Waters Davis SWCD - Angleton, Texas

## Listing of Counties

The following is a list of counties within the 208 designated area. Interviews were conducted with most of the counties. Authorities and activities were similar in nature with the exception of Harris County. Therefore, Harris County was present to provide details of their flood and pollution control activities.

Brazoria County
County Judge: E. E. Brewer
County Courthouse
Angleton, Texas 77515

Fort Bend County
County Judge: Josh Gates
County Courthouse
Richmond, Texas 77469

Galveston County
County Judge: Ray Holbrook
County Courthouse
722 Moody
Galveston, Texas 77550

Harris County
County Judge: Jon Lindsay
County Courthouse
301 San Jacinto
Houston, Texas 77002

Montgomery County
County Judge: Lynn Coker
County Courthouse
Conroe, Texas 77301

Waller County
County Judge: Jack Taylor
County Courthouse
Hempstead, Texas 77445

# VI - MUNICIPALITIES

# CHAPTER VI - MUNICIPALITIES

## Introduction

There are a total of forty municipalities within the 208 designated area. Twenty-seven of the municipalities are general law cities, and the remaining thirteen municipalities are home rule cities.

General law cities are so named because they operate under and draw their powers from the general laws of the State as specified in the Texas Constitution and the Texas State Civil Statutes. Home rule cities, in addition to powers derived from the general laws of the State, adopt their own charters pursuant to constitutional statutory authority for home rule. The main differences between home rule and general law cities are the ad valorem tax ceiling, power to make improvements to streams, and annexation powers. However, the practical interpretation of home rule power has not differed much from that applied to general law cities.

All municipalities have the statutory authority and typically provide services to their residents for fresh water supply, sewage treatment, and stormwater systems. Where the city itself does not provide these services, it usually contracts with another agency to provide such services. Thus, the effect of 208 planning upon municipalities will be quite substantial. Detailed information was collected and compiled for many of the typical cities, however, the commonality of authority and activities did not justify inclusion of separate writings in this document. Only the activities and boundaries of the City of Houston were such that this city should be presented in the data catalog.

## Cities

### Introduction

When a community reaches a population of 200, it may file an application, by signatures of at least 20 people, with the County Judge to hold an incorporation election. Extraterritorial jurisdictional effects on this process are discussed in the section that follows. If successful, the County Judge enters the name and location of the town into the county records. Once a population of 600 is reached, the town may adopt Title 28 of the Texas Statutes and become a general law city. A general law city has the power to pass ordinances for the general welfare of the community and may choose a mayor-council, commission or city manager form of government. When a city reaches a population of 5,000, it may become a home rule city. Home rule cities draw their powers from a charter adopted by the citizens pursuant to constitutional statutory authority for home rule. By charter provision, they determine the form of government they will have.

### Agency Role

Cities are the most basic level of government, and both general law and home rule cities have extensive powers to engage in almost all activities necessary for the protection of health, safety and welfare of its residents. A major role of cities is to provide utilities such as water and sewer, community services and facilities, including parks, fire and police protection. Cities have more power than any other level of government, but their jurisdiction is limited, with the direct powers being applicable only to the city limits and with only limited powers beyond its boundaries. The philosophy and extent of the utilization of city powers will vary from city to city.

### Organization

General law or home rule cities may adopt either a Mayor-Council, or Council-City Manager or Commission-Manager form of government. If the Mayor-Council form is chosen, the Mayor is the chief administrative officer of the city and the Council is the body that passes ordinances regulating activities within the city. If the Council-City Manager form is chosen, the members of the Council, (including the Mayor), are the policy making body of the city, and the City Manager who is appointed by the Council, is the chief administrative officer of the city. In either case, an administrative body is formed under either the Mayor or the City Manager, respectively, with that body being in charge of the various elements of city business. Additionally, a City Planning Commission is appointed by the City Council to discharge statutory responsibilities related to the approval of subdivision plats. Further, cities have building codes and other regulations concerning construction. A separate entity exists within the city to review applications for building permits. Other administrative sections exists within the city as the Mayor or City Manager determines the necessity. While this description is not exhaustive, it does offer the general structure of city government.

### Specific Responsibilities

The responsibilities of cities are as numerous and diverse as those of any other governmental entity. Generally, the city is responsible for passing ordinances regulating activities in the name of public health, safety and welfare and to expend money for necessary public services. Wastewater management activities fall under this broad concern.

### Operation and Maintenance

Cities may operate and maintain wastewater treatment facilities and, if necessary for public health, storm water and flood control facilities. Further, cities may contract with other entities to provide or obtain wastewater treatment services.

### Finance

Cities have substantial authority to finance wastewater facilities and other facilities needed within the city. One of the finance differences between general law and home rule cities is that general law cities may only charge ad valorem taxes equal to 1.5% per $100 valuation whereas home rule cities can charge ad valorem taxes equal to 2.5% per $100 valuation. Cities have the authority to issue either general obligation or revenue bonds to raise needed capital. Further, cities may assess user charges and assessments; taxes for waterworks, sewers, and other improvements; and receive grants for facility planning, design, and construction in accordance with federal regulations.

### Planning

Cities are granted planning power and normally exercise it through a City Planning Commission. Such planning may be concerned with any area of city operation and development and grants may be sought for the planning purposes. Many cities develop and adopt master plans to guide future growth and development based on comprehensive planning studies. Most major cities have a city planning department. Many cities have undertaken 201 facilities planning to obtain Step 1, Step 2, and Step 3 funding for wastewater facilities. Further, many cities undertake extensive population studies to determine future facility needs.

## Design and Construction

Cities have the power to design and construct wastewater treatment facilities, although this function is generally contracted to a consulting engineering firm.

## Standard Setting

Cities may not issue discharge permits nor may they set stream standards. Cities are to make recommendations on the issuance of standards and permits by the TWQB. Additionally, cities have extensive powers to indirectly influence stream quality, if not the standards, through the selective control of land development and through the passage of ordinances relating to water quality issues.

## Permitting

Cities have no direct authority to issue wastewater discharge permits. They do have substantial authority to control land development activities within their boundaries through the passage of ordinances. Therefore, these powers may be exercised as one strategy for non-point source control. The most logical mechanism for such controls would be through the subdivision platting process. Subdivision controls normally determine how and when, and not where land development activities are to occur. The City Council would need to approve a change in the subdivision plat approval ordinances in order for such controls to be implemented, but it is clear that such authority does fall within the gamut of constitutional power. The authority of the city over areas outside its boundaries is discussed separately under Cities - Extraterritorial Jurisdiction (ETJ).

## Monitoring

Cities have the authority to monitor both stream water quality and discharge effluent quality.

## Enforcement

Cities have the authority to enforce the Texas Water Quality Act.

## Cities - Extraterritorial Jurisdiction (ETJ)

Depending upon their size, cities automatically have certain land areas reserved for future municipal growth. These extensions range in size from a low of one-half mile for cities of at least 5,000 persons to those cities with populations in excess of 250,000 which may reserve areas up to five miles from their boundaries for future annexation purposes. These areas so designated are called areas of extraterritorial jurisdiction, or ETJ.

During the 1960's, a Texas law was in affect that did not prohibit cities to annex land areas along major highways. This strip-annexation power was utilized by the City of Houston which extended its land area substantial distances along most of the major arterial highways throughout Harris County, particularly to the north, northwest, west and southwest portions of the County. In this manner, the ETJ of the city of Houston extends five miles from these strip annexed areas, placing the majority of the unincorporated areas of Harris and portions of surrounding counties within the ETJ of the city of Houston. The city of Houston and its ETJ comprise almost the entire 208 designated area.

The primary power of a city over the ETJ concerns the prevention of the incorporation of new municipalities and gives the city the right to apply subdivision regulations by passing ordinances. If unincorporated areas within the ETJ wish to incorporate, they must obtain the permission of the city having the area within its ETJ. If the city does not concur with the request, then the creation effort fails. It is possible, however, that incorporation may be allowed through the passage of special State legislation, if the legislature approves the particular situation. For the most part, the presence of the ETJ reserves areas for future annexation.

The decision whether annexation is to occur rests solely with the city. The City of Houston, for example, follows a rather rigid financial requirements criteria for annexation determinations. As unincorporated areas are brought into the city, these areas bring to the city their tax base and their bonded indebtedness. If the area seeking annexation does not have the ability to "pay its own way," Houston tends not to annex these areas. In this manner, the city may preserve its bond rating, its strong financial position, and cover the costs of providing city services.

Areas within the ETJ are provided with services by some other governmental or nongovernmental entity. The city within whose ETJ the area lies is not responsible for providing services. Wastewater, water and drainage may be provided by some type of special utility district, i.e., MUD's, or by some regional entity, whereas many other services are provided by the county, i.e., police protection. Certain other services, such as fire protection, may be provided by volunteer fire departments. Although the delivery of services in such areas may be fragmented, the taxes paid by consumers are generally lower than in municipalities.

Cities have only limited authority over land development activities occurring in unincorporated areas. Cities may not zone areas within their ETJ, but they can require that subdivision plats within these areas be submitted to the city planning commission for review and approval, and these plats must conform to the city's subdivision platting requirements. In order for these subdivision plat requirements to be applicable within the ETJ, the city must pass an ordinance stating that these requirements are applicable to the ETJ.

A county also has jurisdiction over developments in unincorporated areas within a city's ETJ. A county has no jurisdiction over subdivisions being developed within city limits. A county's jurisdiction is usually limited to considerations relating to roads and drainage, particularly flood plains. As such, the county's limited review is concurrent with the city's review in these unincorporated areas. While the potential for conflicting review criteria exists, informal communication is usually effective to date in resolving conflicts. The general rule may be stated, however, that the more stringent review criteria would have precedence.

The ETJ is an area where no single governmental entity has control. The potential exists that either the city or the county could issue stringent review regulations for subdivisions, but the county's ability to pass such regulations is limited by statute. Therefore, if a city were to pass a subdivision plat review ordinance and make it specifically applicable to the ETJ as well as the rest of the city, such action would be legal.

Further, the Texas Water Rights Commission must obtain the concurrence of a city prior to allowing the creation of any new districts within the city's ETJ. A city can attach conditions to its approval of such districts, including conformance to general utility design specifications.

City of Houston
900 Brazos Street
Houston, Texas 77002

## Introduction

The City of Houston has jurisdiction, either directly or through its extraterritorial jurisdiction, over the majority of Harris County. The City has chosen a Mayor-Council type of government, and being a home rule city, has a charter which was approved in 1947 by its citizens.

## Agency Role

The City of Houston is a central force in the Houston 208 area, both from a growth perspective and from a wastewater treatment perspective. To date, the City has taken a philosophical approach to growth that makes it unique among major cities of the United States. Even though the City has the power to enact zoning ordinances and to rigidly control the use of land, it has chosen not to do so. Instead, Houston allows the market price of land to determine its use. Through the process of strip annexation, the City extended its boundaries along the major arteries prior to the removal of such provisions from the State statutes. Since the extraterritorial jurisdiction of cities the size of Houston extends five miles from the city limits, Houston has gained control over vast, unincorporated areas of Harris and portions of surrounding counties. Such jurisdictional control gives Houston tremendous capabilities to affect growth patterns. Today, Houston is the largest urban area of the state, with a population of approximately 1,500,000 persons; 506 square miles of land area are within the city limits of Houston, and some 2000 additional square miles of land fall within the ETJ.

## Organization

Houston has had a Mayor-Council form of government since 1947. Under this form of government, all legislative powers are vested in the City Council, which is composed of eight Councilmen and the Mayor. The Mayor is the chief administrative officer of the City, The Mayor, Council members, and City Controller constitute the City's elected officials and serve two-year terms that run concurrently. All administrative department heads are appointed by the Mayor subject to Council confirmation, and are responsible to the Mayor. The Mayor can remove a department head without Council concurrence.

Those departments directly involved in wastewater management activities and those related to the 208 effort are public works, city planning, health, legal and policy planning. These departments will be discussed under the various functional areas.

## Specific Responsibilities

The City is responsible for operating and maintaining sewage treatment plants, undertaking various planning activities, financing infrastructure improvements, undertaking the design and construction of wastewater facilities, issuing building permits relative to water quality and monitoring and enforcing aspects of water quality. As such, the City is involved in almost all aspects of water quality.

## Operation and Maintenance

The City has 37 treatment plants, 3,500 miles of storm sewers and 3,700 miles of sanitary sewers. Of the 37 treatment plants, 26 are producing effluents of satisfactory quality on the average, over the past year. Sewage treatment responsibilities are handled by the wastewater division of the Public Works Department. In addition to operating and maintaining sewage treatment facilities, the City maintains stormwater ditches and sewers which interconnect with major outfalls of the Harris County Flood Control District.

In addition to services within its city limits, the City is providing sewer service to portions of Bellaire, Spring Valley, other urban areas, districts and industries outside of its boundaries. In some cases, Gulf Coast Waste Disposal Authority is providing coordination, development and facility operation services within the extraterritorial jurisdiction with the approval of the City of Houston.

## Planning

The primary thrust of planning activities by the City is to forecast population growth and land use change. These forecasts are generally initiated by the City Planning Department in cooperation with the Houston-Galveston Area Council and representatives of the Mayor's office. These population and land use projections are then transmitted to the various operating departments for the development of capital expenditure programs to provide the services necessary for the projected population growth. Although a City Planning Commission exists for the purpose of subdivision plat approval, this appointed body does not actively undertake growth management, a function generally performed by city planning commissions in other major cities.

Houston is engaged in many other planning functions in addition to those concerning wastewater, although a functional relationship certainly exists between these planning activities. Public transportation planning is being pursued by the office of Public Transportation. This office has an intergovernmental agreement with the Houston-Galveston Area Council to do transit planning for the area within the City Limits and for the extraterritorial jurisdiction of the City. The transportation plan related to the Clean Air Act requirements is being submitted by the Health Department to the Texas Air Control Board, but the information was supplied by the Office of Public Transportation.

HUD 701 planning is not being undertaken by the City of Houston; certain of the pieces of information relevant to comprehensive planning are however being collected and organized by the Community Development Division of the Mayor's office, with certain of the work being subcontracted to the City Planning Department. Additionally, there is a Policy Planning Division within the Mayor's office that is collecting and analyzing data related to housing trends, growth areas and other similar types of information. In particular, Policy Planning has worked with the Public Works Department in developing the 201 facilities planning population projection numbers, is developing housing data and housing projection tools and techniques under sub-contract to the Community Development Department and has also been involved in a housing needs analysis. Further, an independent contractor to the City of Houston is undertaking a study to determine forces that cause growth and growth futures for the City given particular sets of forces. Therefore, there is a substantial amount of planning activity being undertaken at the City level, and these planning efforts, if translated into policy, could be inputs to the 208 planning process.

## Finance

Much of the revenue of the City of Houston is raised through taxes. The major income sources are the ad valorem (property) tax and the city sales tax, with other income sources being other local taxes; licenses, permits, and inspection fees; fines, forfeits and penalties; revenue for use of property; airport revenue; federal funds; and water and wastewater user fees. To raise capital, the City may issue two types of bonds -- general obligation and revenue. Revenue bonds may be for wastewater, water, water districts, airport and civic center improvement. In the wastewater area, the City plans to spend some $550 million during the next six years, much of which will be from grants by EPA and EDA.

## Operation and Maintenance

Operation and maintenance activities for wastewater facilities are financed through the wastewater enterprise fund, whereas storm sewers are financed by the general fund, i.e., ad valorem and city taxes. The primary source of revenue for the wastewater enterprise fund is the user charges. These rates are set by City Council after study and recommendations.

## Design and Construction

The City is responsible for obtaining design and construction of proper sanitary sewer systems to meet needs. Under the 201 program or through the use of City funds alone, design of wastewater treatment systems is secured through the use of private consulting firms. Additionally, the City reviews subdivision plats to determine that the utilities are in conformance with city specifications.

## Standard Setting

Under existing legislation, the City of Houston may recommend water quality standards to the TWQB. Special provisions exist with respect to the protection of water supply sources. The City does not set water quality standards per se, however.

## Permitting

The TWQB and EPA have sole authority to issue wastewater point source discharge permits. However, the City has potential control over non-point sources, both within the city limits and within the ETJ. At this time, the City exercises authority over septic tanks, and regulations relative to the federal flood insurance program are in effect regarding slab elevation. Through the subdivision platting process substantial control could be exercised over the form of land development, but the exercise of this authority would require the passage of an ordinance by the City Council. At this time, certain areas within the city of Houston have been identified as having inadequate sewerage facilities. In these areas a limited moratorium on development is in effect and is administered by the Public Works Department. This moratorium is limited since land development activities contributing more than 1500 gallons of effluent per acre per day are to be denied a building permit, but land development activities contributing less are permitted. Large areas of the urbanized portion of the city are covered by these regulations, and the proposed timing of the removal of these controls is specified in a Response Report to the TWQB. Therefore, the City has substantial permitting authority as manifest in the subdivision and building permit control process.

## Monitoring

Through the Water Pollution and Control Section of the City Health Department, both effluent and water quality monitoring activities are being pursued. Sampling of effluent discharge quality is being undertaken on a "self-reporting" basis, and some monitoring of effluent quality from non-city sources is also being undertaken. However, the City's water quality sampling data to determine stream quality is an important, ongoing program that provides data for stream segments that are not monitored by the Texas Water Quality Board. Additionally, a study has been funded through this division to monitor and analyze the quality of Lake Houston water which is used for drinking water supply purposes. The City has a well equipped laboratory which has additional equipment on order.

## Enforcement

The Water Pollution and Control Division of the Health Department, the TWQB, and the EPA are the primary agencies involved within city limits in water quality enforcement activities.

The City undertakes enforcement activities. After sample analysis, a noncompliant discharger is contacted. If such contact fails to bring about necessary changes, then the violation is referred to the City Legal Department. Such referrals may bring about litigation if corrective measures are not undertaken.

The city's Water Pollution and Control Division files approximately 400 suits a year when normal contact with those in noncompliance fails to bring results. Samples are obtained, and when the laboratory results are returned, each are compared to quality standards set by city ordinance, TWQB, or EPA. The job of enforcement is not, however, finalized with informing the violating company of the illegal discharge nor of issuing a citation. When necessary criminal and civil litigation is prepared by the Legal Department for court filing. This latter is a last resort only after all attempts at corrections have failed within a specified time limit, or no obvious attempts are being made by the offender.

EPA and TWQB have limited activities regarding enforcement. The EPA fines of up to $25,000, and the TWQB $1,000 fines for each day of a violation tend to encourage compliance. Fines levied by the City of Houston are limited State Statutes and are lower than State and Federal fines. Therefore, these fines, when imposed, tend to discourage compliance. The fines collected by the city are insufficient to defer the cost of data collection and prosecution. One half of all civil fines (Article 21256) are retained by the city, and the other is remitted to the TWQB, who normally is a cocomplaintant. All criminal fines collected are remitted in total to the state. Criminal actions are less expensive and more effective in obtaining future compliance and, consequently, are preferred by the City Legal Department.

## Listing of General Law Cities

The following is a list of General Law Cities within the 208 designated area. These cities have identical authorities and to a large extent similar activities. Information was compiled and is available in project working papers at H-GAC for review on one of these cities.

Brookside Village
Brazoria County
Route A-3, Box 147
Brookside Village, Texas 77581

Bunker Hill Village
Harris County
11977 Memorial Drive
Houston, Texas 77024

Clear Lake Shores
Galveston County
P.O. Box 75
Kemah, Texas 77565

El Lago
Harris County
3802 NASA Rd. 1, #27
Seabrook, Texas 77586

Hedwig Village
Harris County
955 Piney Point Road
Houston, Texas 77024

Hilshire Village
Harris County
P.O. Box 55233
Houston, Texas 77055

Hunters Creek Village
Harris County
8433 Katy Freeway, #203
Houston, Texas 77024

Jacinto City
Harris County
10301 Market Street Road
Houston, Texas 77029

Jersey Village
Harris County
16501 Jersey Drive
Houston, Texas 77040

Katy
Harris County
910 Avenue C
Katy, Texas 77450

Kemah
Galveston County
P.O. Box 817
Kemah, Texas 77565

Loma
Harris County
1508 Lomax School Road
La Porte, Texas 77571

Magnolia
Montgomery County
P.O. Box 396
Magnolia, Texas 77355

Morgan's Point
Harris County
P.O. Box 839
La Porte, Texas 77571

Piney Point Village
Harris County
42 Stillforest
Houston, Texas 77024

Prairie View
Waller County
P.O. Box 2809
Prairie View, Texas 77445

Seabrook
Harris County
P.O. Box 535
Seabrook, Texas 77586

Shoreacres
Harris County
619 Shoreacres Blvd.
La Porte, Texas 77571

Southside Place
Harris County
6309 Edloe Avenue
Houston, Texas 77005

Stagecoach
Montgomery County
Rt. 2, Box 1385
Magnolia, Texas 77355

Tomball
Harris County
401 West Market Street
Tomball, Texas 77375

Webster
Harris County
311 Pennsylvania
Webster, Texas 77598

Shenandoah
Montgomery County
29400 Driftwood
Conroe, Texas 77301

South Houston
Harris County
P.O. Box 238
South Houston, Texas

Spring Valley
Harris County
1025 Campbell Road
Houston, Texas 77055

Taylor Lake Village
Harris County
815 Timber Cove Drive
Seabrook, Texas 77586

Waller
Waller County
1118 Farr
Waller, Texas 77484

## Listing of Home Rule Cities

The following is a list of home rule cities within the 208 designated area. Several cities were interviewed and detailed information cataloged. The similarity of authorities and activities did not necessitate separate writings. The City of Houston was an exception and consequently was included because of their geographic scope and wastewater treatment activities.

Baytown
Harris County
P. O. Box 424
Baytown, Texas 77520

Deer Park
Harris County
1302 Center Street
Deer Park, Texas 77536

Galena Park
Harris County
2000 Clinton Drive
Galena Park, Texas 77547

Humble
Harris County
110 West Main
Humble, Texas 77338

League City
Galveston County
300 West Walker
League City, Texas 77573

Pasadena
Harris County
P.O. Box 672
Pasadena, Texas 77501

West University Place
Harris County
3800 University Blvd.
Houston, Texas 77005

Bellaire
Harris County
7008 South Rice Avenue
Bellaire, Texas 77401

Friendswood
Galveston County
109 Willowick Avenue
Friendswood, Texas 77546

Houston
Harris County
900 Brazos Street
Houston, Texas 77002

La Porte
Harris County
124 South Second
La Porte, Texas 77571

Nassau Bay
Harris County
18100 Upper Bay Road, #102
Houston, Texas 77058

Pearland
Brazoria County
2335 North Texas
Pearland, Texas 77581

# VII - LOCAL WATER DISTRICTS OVERVIEW

# CHAPTER VII - LOCAL WATER DISTRICTS OVERVIEW

## Introduction

### General Information

Local water districts are governmental units which have the power to tax and to incur debt. A district may be created by a special legislative act or under procedures set forth in the general laws of the State, under the jurisdiction of the Texas Water Rights Commission.

Water districts are both functionally and territorially diverse. They may supply water for residential, industrial, and irrigation purposes; and they may control water for purposes of waste disposal, navigation, flood control, recreation, soil conservation, and power supply. Their jurisdiction may vary from just a few acres to several counties.

Water districts are created under State law and authorized as taxing entities by the Texas Constitution. They may issue bonds to pay for water and sewer facilities. The bonds are municipal obligations and, therefore, the interest paid on them is not subject to federal income tax. The Texas Water Rights Commission has automatic supervisory power over those water districts that are created under general law. When districts are created by special law, the Commission is usually given supervisory power.

The city within whose extraterritorial jurisdiction the water district is created may also exercise some supervision. The Municipal Annexation Act allows cities to prevent creation of special governments within their ETJ. Cities such as Houston use this power of veto to require developers to follow the city standards for water and sewer facilities. The city will eventually annex the water district and take over the indebtedness.

In the H-GAC 208 designated area, the typical pattern for subdivision development using a water district finds a developer identifying a 200- to 300-acre tract to be divided into lots for building purposes. Developers usually do not place more than 300 acres in a district because they want to complete their sales before political control over the district passes to the subdivision residents. This usually happens within 3 to 5 years after creation of the district, and the developer will not service more land than can be sold within that time. The developer will either go before the Texas Water Rights Commission or have special legislation authorizing creation of a water district. The developer will ensure that a select group of residents will qualify as voters to authorize creation of the district and issuance of bonds sufficient to pay for the sewer and water facilities for the proposed subdivision. After the formal procedures are completed, the district issues bonds and constructs the facilities. Bonds are easily saleable because of the income-tax-free interest. The subdivision development can proceed after these basic utilities are in place, and the houses will be built and sold to consumers. The consumers pay for the cost of the facilities by taxes levied by the district and by user fees.

The relatively small areas served by water districts results in the development of numerous, small treatment facilities in fringe-area growth. Although these facilities may be well designed and capable of adequate treatment, they will cause pollution problems if not operated properly.

Water districts in the Houston area may be broken down into four major categories: Water Control and Improvement Districts (WCID); Municipal Utility Districts (MUD); Fresh Water Supply Districts (FWSD); and legislative, or special law, districts. It should be noted that the name adopted by a water district does not necessarily denote the chapter of the Texas Water Code under which the water district operates. This must be determined from documentation of the water district's creation.

There are approximately 310 water districts in the H-GAC 208 designated area. Within this group there are 36 WCIDs, 168 MUDs, 11 FWSDs, and 95 special law districts. These districts vary in size from about 100 acres to over 1,200 acres.

The Association of Water Board Directors (AWBD) was established in October of 1975 as a nonprofit Texas Corporation organized to serve the administrative, legislative, service, and communication needs of the water district community. The Association is dedicated to the betterment of Texas water district operation and management through education and unification. In addition, the Association has made possible the establishment of previously nonexistent channels of communication between water districts.

The primary communications tool used by the Association is the monthly AWBD Journal which contains informative articles on various topics relating to water district operation and management. The Journal, with a circulation of about 1,400 copies, is mailed each month to all of the water districts in the state, whether they are members of the Association or not. The Journal is also sent to the various State and regional supervisory agencies which deal with water district activity.

In addition, the AWBD holds regular monthly meetings which normally include a guest speaker from one of the numerous regulatory authorities associated with the districts. The Association conducts an annual meeting each May or June which includes specialized seminars dealing with water district administration, working with governmental agencies and controls, and other issues with which new Board members must be familiar.

The AWBD is open to statewide membership; however, at the present time the majority of the approximately 400 members are from the Houston/Harris County area.

## Water District Bonds

Water district bonds are issued to pay costs and charges for construction of water, sewer, and drainage improvements including the cost of necessary property. Bonds are also issued for the retirement of any preliminary bonds. Bonds cannot be issued until after the creation of a water district and until the district has adopted plans for construction. The amount of the bonds issued cannot exceed the amount of the engineer's estimate of construction costs plus estimates of nonconstruction costs.

Before bonds can officially be sold, water district projects and expenditures of bond money for that project must first be approved by the Texas Water Rights Commission.

All water district bonds, which are classified as municipal bonds, must go through the following steps to be approved in Texas:

Bonds must be approved by voters in an election held in the district. Bonds must be authorized by the district board. The transcript of the bond order and a project report and plans must be approved by the city, county, Health Department, and the TWRC. The transcript of the bond order is sent to the Attorney General. This transcript shows what portion of the bonds are to be sold, bids, interest rates, engineering project, bond election results, and other documents. The Attorney General issues an opinion as to the legality of the sale. He does not rule on the quality of the bonds. Bonds and transcript are sent to the State Comptroller for registration and filing.

## Supervision of Water Districts

Supervision of water districts is divided among several state and local authorities. Through the Texas Water Rights Commission, the Texas Water Quality Board, and the Attorney General's Office, the State has general regulatory powers over water districts.

On the local level, supervision of water districts focuses primarily on the construction projects financed by water districts. In the Houston Metropolitan area, because of the great number of water districts here, the TWRC has established a local office to oversee these projects. The cities have to agree to the creation of water districts within their ETJ unless their creation was by special legislation. Such concurrence gives the city the power to specify certain conditions relative to design. This supervisory responsibility is also shared by local cities, counties, and councils of governments around the state.

There is no single, locally coordinated procedure to review water district creations and operations. As a result there is duplication in supervision in some areas and a lack of supervision in others.

## Water Control and Improvement Districts

Water control and improvement districts are governed by Chapter 51 of the Texas Water Code. In the early years of their existence, WCIDs were formed primarily for irrigation purposes. More recently, however, they have been organized for such purposes as domestic and commercial water supply, sewage disposal, and refuse collection. Under the Code, WCIDs are charged with planning to control, store, preserve, and distribute surface waters for irrigation, power, and all other useful purposes.

WCIDs may be created by TWRC or by petition to the County Commissioner's Court if the WCID has water and drainage only. However, the bond issue is always reviewed by the TWRC. The petition must be signed by a majority of the persons who hold title to the land which represents more than 50 percent of the value of the land in the district. A confirmation election is held in the district after the Commissioner's Court or TWRC orders creation of a district.

### General Authority

They have the authority needed to construct, maintain, and operate necessary water improvements and facilities and to undertake construction to supply water for municipal, domestic, power, and commercial purposes.

WCIDs may also provide for reclamation for irrigation; reclamation, drainage, conservation and development for forests, water and hydroelectric power; navigation; control and abatement of water shortage or excess; protection, preservation, and restoration of the purity and sanitary conditions of water within the state; and preservation and conservation of all natural resources of the state.

In addition to those powers mentioned above, WCIDs may exercise the power of eminent domain to acquire water rights and land, and they may acquire title to or easement over necessary land both inside and outside the district. They have the authority to make such regulations as are necessary to maintain safe, sanitary, and adequate appurtenances of sewer systems. The districts may also regulate hunting, residence, fishing, boating, camping, and all recreational and business privileges on any stream of water, or any body of land, or any easement owned by the district.

## Financial Powers

Water control and improvement districts may fix and collect user charges for services provided; they may levy ad valorem taxes; and they may sell any surplus water and land to other districts in the vicinity. They are also authorized to issue bonds when necessary to raise funds for improvements.

## Municipal Utility Districts

Municipal utility districts are governed by Chapter 54 of the Texas Water Code which was passed in 1971 by the legislature. This statute provides for the creation of MUDs and the operation thereof. It set up steps for creating a MUD which follow the pattern established in those districts created by the legislature. The first step is a petition to the TWRC. Although a confirmation election is required to form a municipal utility district, the election may be combined with the election of directors and a vote to authorize bonds.

Under the MUD Act, approval for creation of a district is contingent on whether or not "the project is feasible and practicable and is necessary and would be a benefit to the land." (Chapter 54.021a). The overall effect of the MUD Act has been to virtually eliminate the creation of water districts by special law and to channel creation through the Texas Water Rights Commission.

### General Authority

Under Chapter 54 of the Code, municipal utility districts may purchase, acquire, own, operate, maintain, repair, improve, or extend inside or outside its boundaries any and all facilities and equipment necessary to supply water for municipal, domestic, commercial, power, and all other beneficial uses; control all domestic, industrial, or commercial wastes; provide for flood control and water storage; irrigate the land; alter land elevation; navigate coastal and inland waters; and provide parks and recreational facilities for the inhabitants in the district.

### Financial Powers

MUDs are also authorized to fix and collect user charges for services provided and to issue revenue and special tax bonds. In addition, they must levy a continuing ad valorem tax on all taxable property within the district while all or part of the bonds are outstanding in order to pay the interest on the bonds and in order to create a sinking fund to retire the principal of the bonds.

## Fresh Water Supply Districts

Fresh water supply districts are formed under the provisions of Article XVI, Section 59, of the Constitution of the State of Texas and are governed by Chapter 53 of the Texas Water Code. In order to create an FWSD, a petition signed by 50 persons or a majority of the qualified voters in the district who own land therein is presented to the County Commissioner's Court. The FWSD, if created by a county, would be limited to sewer and water supply with the bond issue reviewed by TWRC. After a hearing the court may order an election to establish the district and to elect five supervisors and an assessor-collector of taxes.

### General Authority

FWSDs are empowered to conserve, transport, and distribute fresh waters from any source for domestic and commercial uses. They may acquire water rights and privileges, and they may construct and operate sewerage facilities in order to control wastes if no other public sanitary sewer system is available for the area. In this case an election must be held first.

This type of district may also regulate the installation, maintenance, and operation of plumbing fixtures and facilities inside the district. In addition, they may exercise the power of eminent domain, except through parks, cemeteries, manufacturing establishments, or established and developed waterpowers existing at the time the FWSD is created.

### Financial Powers

Fresh water supply districts are authorized to fix and collect user charges, to levy maintenance taxes, and to borrow money and issue bonds. The districts may levy, assess, and collect ad valorem taxes if combination tax and revenue bonds are issued. FWSDs may levy taxes sufficient to pay the interest on the bonds issued and to create a sinking fund for the retirement of bond principal. There are no constitutional or statutory limits on their debt and taxing powers.

## Special Law Districts

Special law districts, or legislative districts, are water districts created by special act of the Texas Legislature. Most of these districts are similar to Water Control and Improvement Districts. These districts were the type most frequently used by developers until the Municipal Utility District Act was passed in 1971. This act largely eliminated the need for districts created by the Legislature.

Special law districts are created under Article XVI, Section 59, of the Constitution and they have the same general authority as do the other types of water districts. These districts can have many different titles, the most common being MUDs, PUDs (Public Utility Districts), UDs (Utility Districts), and IDs (Improvement Districts). In order to determine the specific powers and authority of a special law district, one must examine the contents of the legislative act which created it.

In most cases special law districts have the power to fix and collect user charges, to issue bonds, and to levy a tax on the property located within a district. With this power, legislative districts provide a developer with the needed financing to provide water, sewer, drainage, and in some instances, recreational facilities such as parks and golf courses for his development. At this time special law districts are providing such improvements to subdivisions and second-home developments as well as to commercial and industrial parks.

# APPENDIX A - TERMINOLOGY

# APPENDIX A - TERMINOLOGY

Listed below are a number of terms and abbreviations which can be frequently found throughout this report. Certain standard acronyms are commonly used in order to facilitate efficiency and accuracy of data correlation. These abbreviations primarily represent technical terminology or agency names which are commonly used in reference to water quality management.

| | |
|---|---|
| BOD | Biochemical oxygen demand |
| BRA | Brazos River Authority |
| CAG | Citizens Advisory Group |
| CCBA | Clear Creek Basin Authority |
| CIWA | Coastal Industrial Water Authority |
| COG | Council of Governments |
| DHEW(HEW) | Department of Health, Education and Welfare |
| DOT | Department of Transportation |
| EDA | Economic Development Administration |
| EIA | Environmental Impact Assessment |
| EIS | Environmental Impact Statement |
| EPA | Environmental Protection Agency |
| ETJ | Extraterritorial jurisdiction |
| FWPCAA | Federal Water Pollution Control Act Amendments of 1972 |
| FWS | U. S. Fish and Wildlife Service |
| FWSD | Fresh Water Supply District |
| GCWDA | Gulf Coast Waste Disposal Authority |
| GLO | General Land Office |
| HCFCD | Harris County Flood Control District |
| HCPCD | Harris County Pollution Control Department |
| H-GAC | Houston-Galveston Area Council |
| H-GCSD | Harris-Galveston Coastal Subsidence District |
| ICNRE | Interagency Council on Natural Resources and Environment |
| ICR | Refers to EPA Industrial Cost Recovery requirements |
| ID | Improvement District |
| MGD | Millions of gallons per day |
| MUD | Municipal Utility District |
| NEPA | National Environmental Policy Act |
| NPDES | National Pollutant Discharge Elimination System |
| O&M | Operations and maintenance |

| | |
|---|---|
| PAC | Planning Advisory Committee |
| P.L. 92-500 | Public Law 92-500 |
| POTW | Publicly-owned treatment works |
| PUD | Public Utility District |
| P&W | Texas Parks and Wildlife Department |
| SCS | U. S. Soil and Conservation Service |
| SJRA | San Jacinto River Authority |
| SS | Suspended solids |
| STP | Sewage treatment plant |
| SWCD | Soil and Water Conservation District |
| TAC | Technical Advisory Committee |
| TDHR | Texas Department of Health Resources |
| TDWR | Texas Department of Water Resources |
| TWDB | Texas Water Development Board |
| TWQB | Texas Water Quality Board |
| TWRC | Texas Water Rights Commission |
| UC | Refers to EPA User Charge requirements |
| WCID | Water Control and Improvement District |
| WQM | Water quality management |
| WWT | Wastewater treatment |